

## COMMENTS ON THE AMENDMENTS AND REMARKS

1. This is Applicant's Response to the Office's communications written and dated 1/4/04, listed as mailed on 1/13/04, and mailed on 1/14/04 [cover as Exhibit "1", attached; and hereinafter simply referred to "Communication of 1/13/04"].

2. The Applicant thanks Examiner Palabrica and Mr. Carone for the careful attention to detail accorded to the above-identified application. Pursuant to In re Oetiker, Applicant hereby does respond in full to each of the Examiner's points, in detail below. The Office's Communication of 1/13/04 is inconsistent with the Office's previous actions as will be discussed below. The Office's Communication of 1/13/04 does not comply with several of the Office's rules as will be discussed below. The Office's Communication of 1/13/04 contains misstatements that are hereby corrected for the record.

3. Applicant acknowledges, but respectfully disputes [for many reasons discussed in detail below], that Claims 1-20 are rejected under 35 U.S.C. 112, first paragraph, "as failing to comply with the enablement requirement". Claims 1-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 1, 3-7 are rejected under 35 U.S.C. 102(b) as being anticipated by JP-06-018683. Claims 8-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 06-018683 in view of any one of Wang et al. (U.S. 5,495,767), Steinlecher et al. (U.S. 5,883,715) or Zang et al. (U.S. 5,838,439). All of the Examiner's comments have been addressed and rebutted.

4. Applicant acknowledges, thanks the Examiner, and herein corrects Claims 1, 8, 10, 14, and 17 based upon Examiner's comments, to satisfy all rejections under 35 U.S.C. 112, second paragraph. Pursuant to the Examiner's communication, some of the claims have now been corrected. In all cases of amendment, there is no new material added. The changes were only made in response to the comments of the Examiner, the wording and scope of the changes maintains the wording and scope of the original disclosure. The new claims and amendments are strictly composed of the language of the specifications and claims of the original disclosure.

5. Furthermore, regarding Claims 1-20, there is no additional cost or fees since there are now three independent claims and 20 total claims, and there is no change in claim number.

6. The invention at issue in this case, '480, and claimed by Claims 1-20, is generally speaking a vibrating electrode composed of a metal such as palladium which has the unique property of internally filling ("loading") with hydrogen, as a sponge fills with water. The 'vibrational electrode' is monitored for its natural frequency to reveal information about the electrode, specifically for information about "how much" hydrogen is within the electrode based upon a mass change of said electrode that results from said loading. This *in situ* monitoring occurs non-invasively and without disturbing the reactions - which are features of great and significant utility. As the original specification and claims [Appl. 07/371,937 and now '480 as a Continuation] teach, the invention solves the long-standing problem of monitoring the electrode. This monitoring used to be complicated and invasive and has actually involved stopping the desired reactions underway, then electrically uncoupling the electrode, "thereby not only stopping the reaction, but also cross-contaminating both the cathode and the laboratory" by physically removing the electrode, drying it off, and actually weighing it on a scale -- before returning it to the disrupted electrical circuit. With Applicant's invention, it is unnecessary to interrupt the electrical circuit because in the present invention means are provided to vibrate the electrode and, simply put, the 'vibrational cathode' is monitored to reveal information about the electrode. This monitoring occurs remotely and non-invasively and without disturbing the reactions - features of great utility. **These are novel and non-obvious features of obvious great utility.**

Based upon the Examiner's comments the claims of record have been rewritten and amended as Claims 1-20 which fully and completely distinguish the invention over the cited references. These claims respectfully are submitted and are patentable over the cited references because:

- i) the claims recite novel structure and thus are distinguished physically over every reference [Sec. 102], and
- ii) said physical distinction effects new and unexpected results, thereby indicating that said physical distinction is unobvious [Sec. 103].

7. Applicant acknowledges the Notice of Patent Drawing Objection. New drawings will be filed after allowance.

## ON PURPORTED NEW MATTER

8. The Examiner states,

*"3. On the issue of new matter, the Examiner identified examples of differences between the parent application (S/N 07/371,937) and the current application. Applicant's argument that the new matter was the result of the restriction requirement made by a previous Examiner is irrelevant. The issue is whether or not there is new matter in the current application. Also, applicant himself admits, for example, that the term, "loading", in the current application has a different meaning than the term, "electrochemically nuclear fusion" in the parent application (see page 8 of 11 /28/03 of Amendment). Therefore the current application does not qualify as a continuation of the parent and is only entitled to the priority of its filing date of 12/28/2000. Accordingly, the Examiner will address only those substantive items of the traverse that are consistent with the 12/28/2000 filing date."*

### **The Truth - The Examiner Has Been Substantively Unresponsive, This Was Discussed Previously**

The Examiner is wrong, and appears disingenuous, for several reasons. First, "loading" was discussed in the original specification of the parent application (S/N 07/371,937) as discussed below. It was discussed by Examiner Wasil [Exhibit "2"].

Second, "loading" was discussed in the original claims of the parent application (S/N 07/371,937) as discussed below.

Third, "loading" was discussed in the Appeal Brief to the Board in the parent application (S/N 07/371,937), as shown in Exhibit "3".

Fourth, "loading" was discussed in the Appendix to the Federal Court in the parent application (S/N 07/371,937), as shown in Exhibit "4".

Fifth, this has been substantively unresponsive because this was in the original specification. Corroborating this, as was discussed in detail in the previous Communication from the Applicant to the Examiner on pages 7 through 10, the Applicant wrote the following comment,

**"THE TRUTH - Examiner Wasil, the Record, the Court disagree with the Examiner**

**The Examiner is either inaccurate or disingenuous. With all due respect, this is NOT new material. The "and" results from the previous Examiner, Mr. Daniel Wasil. The near identical specification and near identical drawings of Serial no. 07/371,937 have already gone through a restriction by the Primary Examiner Daniel Wasil. Mr. Wasil separated 07/371,937 into three inventions. As Exhibit C demonstrates, the record proves that this has been concluded. Invention 1 involves "an apparatus and method for producing a vibrational frequency of a cathode".**

**Invention 3 involves "an apparatus and method for accelerating nuclear fusion reactions".**

**Invention 1 - "for producing a vibrational frequency of a cathode".**

**Invention 3 - "for accelerating nuclear fusion reactions".**

**The above-entitled invention is Invention #1. Therefore, the wording and scope of the Continuation ['480] fully maintain the wording and scope of the original disclosure and claims."**

**[from Applicant's previous Communication to the Examiner]**

Thus, it can be seen that the loading of '480 was exactly, specifically, and precisely described in '937. The Applicant is accurate, whereas the Examiner is not.

Where is the Examiner's substantive response to Exhibit "2"? Attention is now directed to the fact that said comments in Applicant's Communication have simply been ignored by the Examiner. The Commissioner, and Court, should note that the Examiner did not cite Applicant's arguments, nor did the Examiner discuss Applicant's arguments, nor did the Examiner rebut Applicant's arguments. Therefore it is impossible to tell how the Examiner weighed Applicant's arguments, there is absolutely no way for the Applicant to present the Examiner's reasons for rejection to the Board of Appeals. Because the Examiner was requested to answer and respond with specificity, therefore, given the above, the Applicant hereby again requests to know the substantive precise reason, scientific basis, or authority which allows the Examiner to dismiss this Argument by the Applicant.

Specifically, the Applicant hereby requests to know the authority, or scientific basis, or any basis whatsoever, which allows the Examiner to dismiss the Argument that,

**"Mr. Wasil separated 07/371,937 into three inventions. ... Invention 1 involves "an apparatus and method for producing a vibrational frequency of a cathode".**

9. Also ignored by the Examiner is the following argument and extensive details (cited with precision from Declarations) by the Applicant,

**""S.N. 07/371,937 [presently S.N 09/750,480 as a Continuation (hereinafter '480)] teaches means to monitor loading by a vibration frequency of the loaded material. The cited issues are discussed fully therein. The invention is a method for monitoring a fuel located within ("loaded") a material, like a sponge fills with water. The method uses a vibration of the material. The invention [Appl. 07/371,937, Appendix to**

00-1107 as pages Appendix 160-189, hereinafter A160-189] solves the long-standing problem of measuring the loading remotely and non-invasively - features of great utility. The original disclosure taught the preferred embodiment, the vibrational cathode (A166-A167), monitoring subsystems (A168-A170), viscosity, damping, surface materials (A169), and coupling to a large mass. The equations of motion conform to known physics (A170-A173). The teachings in the original specification included an analysis of the vibratory motion, with discussion of the impact of loading, solution viscosity, and damping, conforming to known physics (A170-A173)."

[from Applicant's previous Communication to the Examiner]

Where is the Examiner's substantive response because loading was discussed in the Decision [Exhibit "5"]?

Where is the Examiner's substantive response because loading was even discussed in the Remand to the Examiner [Exhibit "6"]?

10. Where is the Examiner's substantive response to the cited Original Specification? Ignored by the Examiner is the following argument by the Applicant,

**"Matters of hydrogen loading ... were discussed explicitly in the original specification, of which this application is the Continuation."**

[from Applicant's previous Communication to the Examiner]

Attention is directed to the unfortunate fact that said comment in Applicant's Communication has simply been ignored by the Examiner -- despite the indelible truth, to wit: Loading was discussed a number of times in the original specification of which this application is a Continuation. For example, on page 3 of the original specification of which this application is a Continuation, the inventor wrote,

**"Third, present methods to monitor the changes of deuterium loading into palladium (and other metals) are made difficult in that the material must be removed from the fusion chamber, thereby not only stopping the reaction, but also cross-contaminating both the cathode and the laboratory."**

[Original Specification, SN 07/371,937]

Therein, the Applicant stated that the purpose of the invention is **"to monitor the changes of deuterium loading into palladium"** and as shown above, loading is explicitly mentioned, despite the Examiners statement. Furthermore, said original specification teaches that said loading changes the mass. The application teaches, and continues, that this provides means to monitor the changes in cathodic mass. This is explicitly introduced on page 1 of the original specification of which this application is a Continuation.

There, the inventor wrote - separating the reactions from the vibrations,  
**"The system includes a novel cathode able to vibrate at a natural frequency, means to drive said frequency, and means to monitor said frequency, means to relate frequency changes to changes in the cathodic mass which herald said fusion reactions."**

[Original Specification, SN 07/371,937]

The Examiner, Board, and Court should note that the original specification states that the vibrations herald the reactions ... meaning that they are NOT the reactions, as the Examiner demands, but that they herald said reactions, as the original specification stated.

11. Further supporting the Applicant, and destroying the Examiner's false allegation, "loading" is further explicitly discussed, despite the false allegation by the Examiner on page 5 of the original specification of which this application is a Continuation, the inventor wrote,

**"The repetitive cut-off of the optical beam occurs due to the physical displacement of the cathode during an oscillation as described herein. These oscillations may occur during the loading of said cathode, or may occur periodically."**

[Original Specification, SN 07/371,937]

In addition, supporting the Applicant, "loading" is further explicitly discussed, despite the false allegation by the Examiner on page 13 of the original specification of which this application is a Continuation, in the Table, where the inventor wrote,

**"TABLE 2 - DERIVED VIBRATION FREQUENCIES OF VIBRATING CATHODE (Normalized to both the initial frequency and mass of said cathode, before loading with deuterons)"**

[Original Specification, SN 07/371,937]

Furthermore, the original specification continues to be consistent with this, too, because on page 14 of the original specification of which this application is a Continuation, the inventor wrote and claimed,

**"A system to monitor and accelerate electrochemically induced nuclear fusion reactions, The system includes a novel cathode able to vibrate at a natural frequency, means to drive said frequency, and means to monitor said frequency, means to relate frequency changes to changes in the cathodic mass which herald said fusion reactions.**

[Original Specification, SN 07/371,937]

Thus, it can be seen in the record, that "loading" is taught in the original specification, SN 07/371,937, and that such loading or filling --as taught therein-- further changes the mass, leading to the present invention which monitors said loading.

NOTA BENE: Loading is mentioned several times in the original specification. Why does, or would, the Examiner state otherwise?

12. It can be seen in the record, further corroborating the Applicant, and again definitively proving the Examiner wrong, the previous Examiner, Mr. Wasil, separated the invention by his restriction. The Applicant has abided by that, however, the present Examiner and his supervisors are attempting to force double patenting for reasons unclear at this time. Where is the Examiner's response to the fact that Mr. Daniel Wasil, an honorable person, restricted Serial no. 07/371,937 into three inventions. Invention 1 involves "an apparatus and method for producing a vibrational frequency of a cathode". The above-entitled invention is Invention #1. Applicant preserves the right of Petition or, in the alternative, or a complaint in a Federal Court. The standards of review require the Examiner to explain precisely and substantively why he disagrees.

13. The Examiner is incorrect. Loading is mentioned several times in the original specification. Loading was discussed in every aspect of the record. Why does the Examiner disingenuously state otherwise? How is there equal justice under the Law? Where has there been a uniform standard of review? The claims are directly from the original specification, and claim exactly that which Examiner Wasil explicitly stated was the invention. The original specification of the above-entitled application, in communications with Examiner Daniel Wasil, describes Invention 1 which involves "an apparatus and method for producing a vibrational frequency of a cathode". The wording and scope of the claims maintain the wording and scope of the original disclosure and claims. Where is the explanation of why Applicant's Communication has been ignored by the Examiner. Therefore it is impossible to tell how the Examiner weighed any of Applicant's arguments. There is absolutely no way for the Applicant to present the Examiner's reasons for rejection to the Board of Appeals. Furthermore, because the Examiner was requested to answer and respond with specificity, the Examiner has apparently ignored the Office rules, and expectations of reasonable people, and has defied the laws and regulations of the Patent Office. The Applicant hereby again requests to know the substantive precise reason, scientific basis, or authority which allows the Examiner to dismiss this Argument by the Applicant without citation, analysis, or substantive coherent response.

Therefore, the Applicant requests that the Examiner reconsider because the Examiner's response is demonstrated to be inconsistent with the Office's previous actions and the record and the affidants. The Applicant requests that the Examiner explain reason for his statement if he disagrees.



**RE: U.S.C.112 REJECTION, Second Paragraph**

14. The Examiner states,

*"Claim 1 recites a "process for producing a product using a material which is electrically loaded with a second material. The disclosure is insufficient as what exactly is this so-called "product."*

The Applicant has now offered Amendments to further comply. If this is insufficient, the Applicant hereby request the Examiner to be specific and explain why it is not sufficient, and what it is that the Examiner does not understand, given the clear statements in the original specification, claims, and figures, and the corroboratory statements of the affiants. Furthermore, an amended Claim 1 hereby is submitted for entry to comply with the Examiner's communication. The claims now differ even more significantly from the cited art, and are even more clearly consistent with the original specification and claims. Hopefully this will satisfy the Examiner.

15. The Examiner states,

*"Claims 1, 8 and 17 recite the limitation, "mechanically coupling said material." The claims are vague, indefinite and incomplete as to what the material is coupled to."*

The Examiner has ignored that the Applicant stated,

**"Applicant has discussed this and it was understood by the Previous Examiner Wasil, the many Declarants, and even the Federal Appellate Court. For this reason, and for the additional reason below which demonstrate the Examiner is in error, the Applicant request the Examiner to be specific and explain why it is not sufficient, and what it is that the Examiner does not understand, given the clear statements in the original specification, claims, and figures, and the corroboratory statements of the affiants."**

The Examiner has not responded to Applicant's arguments. The Applicant's arguments have not been fully considered, and instead have been ignored substantively. Therefore it is impossible to tell how the Examiner weighed any of Applicant's arguments. There is absolutely no way for the Applicant to present the Examiner's reasons for rejection to the Board of Appeals. Nonetheless, in response, the Applicant has now offered Amendments to further comply. If this insufficient, then the Applicant hereby requests the Examiner to be specific and explain why it is not sufficient, and what it is that the Examiner does not understand, given the clear statements in the original specification, claims, and figures, and the corroboratory statements of the affiants.

Furthermore, amended Claims 1, 8, and 17 are hereby submitted for entry to comply with the Examiner's communication. The claims now differ even more significantly from the cited art, and are even more clearly consistent with the original specification and claims. Hopefully this will satisfy the Examiner.

16. The Examiner states,

*"Claims 1 and 10 recite the limitation, 'providing means to follow the frequency of said vibration.' The claims are vague and indefinite as to what is meant by the term, 'to follow.'"*

The Applicant has now offered Amendments to further comply. If this is insufficient, the Applicant hereby requests that the Examiner to be specific and explain why it is not sufficient, and what it is that the Examiner does not understand, given the clear statements in the original specification, claims, and figures, and the corroboratory statements of the affiants.

Furthermore, Claims 1 and 10 are hereby submitted for entry to comply with the Examiner's communication. The claims now differ even more significantly from the cited art, and are even more clearly consistent with the original specification and claims. Hopefully this will satisfy the Examiner.

17. The Examiner states,

*"4. Claims 1-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention."*

**The Truth - The Examiner Has Been Substantively Unresponsive, This Was Discussed Previously**

The Examiner has been unresponsive to Applicant's arguments even though they were fully discussed in significant detail in the previous Communication from the Applicant to the Examiner on pages 11 through 15. For example, in said Communication, the Applicant took the time to respond to the Examiner and wrote the following comments and questions.

#### **"PURPORTED INDEFINITENESS**

**It is disingenuous for the Examiner to claim there is indefiniteness in the light of the many missives with the previous Examiner, Daniel Wasil, and in the light of the peer-reviewed cited publication, and in the light of the Declarants, affiants, and Amicus Curiae who are skilled-in-the-art, and especially in the light of the federal court [In re Swartz 00-1107] which had no trouble understanding the invention.**

**"... (I)ndefiniteness in claim language is of semantic origin" [In re Hammack, 427 F.2d 1384 n.5, 166 USPQ 209 n.5 (CCPA 1970)] and indefiniteness is the opposite of definiteness. Applicant has fully complied with the definiteness requirement of the second paragraph of 35 U.S.C. §112. The original specification and claim adequately**

presented the claimed invention so that an artisan, or those skilled in the art, could practice it without undue experimentation [In re Wands, 858 F.2d 731, 737, 8 USPQ2d 1400, 1404 (Fed.Cir.1988)]. Definiteness is a characteristic of a patent claim in which claim language makes the scope of the claim clear to a person skilled in the art to which the invention pertains [MPEP 2173, MPEP 2173.02, MPEP 2173.05(a)]. Pursuant, to MPEP 2173, Applicant claimed with particularity, and did point out and distinctly claim the invention. Applicant's claims are therefore definite because the claims are precise, clear, correct, and unambiguous to a person skilled-in-the-art and, therefore, there was definiteness because the specification did conclude claims particularly pointing out and distinctly claiming the subject matter."

18. Also ignored by the Examiner is the following argument, and request, by the Applicant citing Ex parte Ionescu,

**"DEFINITENESS BECAUSE OF CITED ISSUES ADDRESSED**

16. 35 U.S.C. 112, second paragraph requires the Examiner had to provide reasons why the terms in the claims and/or scope of the invention are unclear "in a positive and constructive way, so that minor problems can be identified and easily corrected, and so that the major effort is expended on more substantive issues." All definiteness issues are hereby addressed. If there are other issues with Claims 1-20, the Examiner is asked to with specificity and clarity further explain what the rejection is based on [Ex parte Ionescu, 222 USPQ 537, 539 (Bd. App. 1984)]. "

[from Applicant's previous Communication to the Examiner]

Attention is now directed to the fact that said comments in Applicant's Communication have simply been ignored by the Examiner. The Applicant hereby again requests to know the substantive precise reason, scientific basis, or authority -- which allows the Examiner to dismiss this Argument by the Applicant without citation, analysis, or substantive coherent response.

19. Also ignored by the Examiner is the following argument by the Applicant citing Ex parte Ionescu,

"17. There is definiteness because, supplementing the detailed specification, the Applicant submits further corroboratory expert testimony [Ex parte Gray, 10 USPQ2d 1922, 1928 (Bd. Pat. App. & Inter. 1989)] including Declarations and Amicus Curiae Briefs --which must be reviewed carefully. The Examiner must accurately discuss the invention as it is actually taught in the original specification and claims. The claimed invention should be the focus of the definiteness requirement."

[from Applicant's previous Communication to the Examiner]

Attention is now directed to the fact that said comments in Applicant's Communication have simply been ignored by the Examiner.

Attention is now directed to the fact that the *Amicus Curiae* Brief of Talbot Chubb [Exhibit "'14", 2/22/01], *Amicus Curiae* Brief of Drs. Edmund Storms [Exhibit "'10", 2/21/01], Averment 4 in the *Amicus Curiae* Brief of Mr. Rotegard [Exhibit "'12", 2/21/01], Pages 4 through 8 in *Amicus Curiae* Brief of Thomas Valone [Exhibit "'11", 2/24/01], and pages 2-5 in the Straus Declaration [Exhibit "'8", November 27, 1992] have been ignored even though the affiants have probative value and even though the averments prove operability of the present invention. These could not have been made without definiteness.

Attention is now directed to the fact that the *Amicus Curiae* Brief of Drs. Edmund Storms [Exhibit "'10", 2/21/01], *Amicus Curiae* Brief of Hal Fox [Exhibit "'18", 5/8/02], *Amicus Curiae* Brief of Eugene Mallove [Exhibit "'20", 5/8/02 ], Declaration of Scott Chubb [Exhibit "'15", 8/13/01], Declaration of Hal Fox [Exhibit "'16", 5/16/95], Declaration of Mr. Rotegard [Exhibit "'13", 5/15/94], Declaration of Hal Fox [Exhibit "'17", 8/14/01], Declaration of Eugene Mallove [Exhibit "'19", 5/6/94], and Straus Declaration of [Exhibit "'9", 5/22/94] have been ignored even though the affiants have probative value and even though the averments prove utility of the present invention. These could not have been made without definiteness.

It is impossible to tell how the Examiner weighed Applicant's arguments; there is absolutely no way for the Applicant to present the Examiner's reasons for rejection to the Board of Appeals. The Applicant hereby again requests to know the substantive precise reason, scientific basis, or authority which allows the Examiner to dismiss this Argument by the Applicant without citation, analysis, or substantive coherent response.

20. Also ignored by the Examiner is the following argument by the Applicant citing *In re Prater*,

**"There is definiteness because the pending claims must be given the broadest reasonable interpretation consistent with the specification [*In re Prater*, 415 F.2d 1393, 162 USPQ 541 (CCPA 1969), also MPEP Section 2111 - Section 2111.01] and the specification stated the meaning of the terms in the claims [*In re Zletz*, 893 F.2d 319, 13 USPQ2d 1320 (Fed. Cir. 1989)]."**

[from Applicant's previous Communication to the Examiner]

Attention is now directed to the fact that said comments in Applicant's Communication have simply been ignored by the Examiner. Therefore it is impossible to tell how the Examiner weighed Applicant's arguments; there is absolutely no way for the Applicant to present the Examiner's reasons for rejection to the Board of Appeals.

21. Also ignored by the Examiner is the following argument by the Applicant citing 2173.05(b),

**"Furthermore, there is definiteness because pursuant to 2173.05(a) the meaning of every term used in the claims was apparent from the prior art, cited art, and from the specification and drawings at the time the application was filed. There is definiteness because the claims must each be given the broadest reasonable interpretation consistent with that which one who is skilled-in-the-art would reach [*In re Morris*]. In this case, it is corroborated by both the Declarations, Amicus Briefs, and peer-reviewed publications. There is definiteness because the preamble of claim 1 recites the purpose of the process, and the process steps are able to stand alone (MPEP 2111.02). There is definiteness because pursuant to 2173.05(b) the fact that claim language may not have been precise cannot automatically render the claim indefinite under 35 U.S.C. 112, second paragraph [*Seattle Box Co., v. Industrial Crating & Packing, Inc.*, 731 F.2d 818, 221 USPQ 568 (Fed. Cir. 1984)]. There is definiteness because acceptability of the claim language depends on whether one of ordinary skill-in-the-art would understand what is claimed, and that is confirmed by the light of the specification, the Declarations, the Amicus Briefs, and the peer-reviewed publications [*Ex parte Porter*, 25 USPQ2d 1144, 1145 (Bd. Pat. App. & Inter. 1992)]."**

[from Applicant's previous Communication to the Examiner]

Attention is now directed to the fact that said comments in Applicant's Communication have simply been ignored by the Examiner. Therefore it is impossible to tell how the Examiner weighed Applicant's arguments; there is absolutely no way for the Applicant to present the Examiner's reasons for rejection to the Board of Appeals. The Applicant hereby again requests to know the

substantive precise reason, scientific basis, or authority which allows the Examiner to dismiss this Argument by the Applicant without citation, analysis, or substantive coherent response.

22. Also ignored by the Examiner is the following argument by the Applicant citing "Peer-reviewed Publications",

**"19. There is definiteness because Applicant provided (and provides again), in addition to the detailed specification, corroboratory probative reference in the form of Peer-reviewed Publications [e.g. Swartz (1992), Swartz (1996)] which prove understanding by one skilled in the art [Atmel Corp. v. Information Storage Devices Inc., Fed. Cir., No. 99-1082, 12/28/99]. "**

[from Applicant's previous Communication to the Examiner]

Attention is now directed to the fact that said comments in Applicant's Communication have simply been ignored by the Examiner. Therefore it is impossible to tell how the Examiner weighed Applicant's arguments; there is absolutely no way for the Applicant to present the Examiner's reasons for rejection to the Board of Appeals. The Applicant hereby again requests to know the substantive precise reason, scientific basis, or authority which allows the Examiner to dismiss this Argument by the Applicant without citation, analysis, or substantive coherent response.

23. Also ignored by the Examiner is the following argument by the Applicant citing 35 U.S.C. 102 in the present case's rejection. Applicant notes to the Examiner that there had to have been definiteness because the Examiner could not have made the rejection under 35 U.S.C. 102 of claims over the other cited art, had the invention truly been without definiteness. The fact that claim 1 was found by the examiner to be anticipated by any combination of the other cited Art, proves that the present invention obviously has definiteness.

24. In summary, Claims 1, 8, 10, 14, and 17 are hereby submitted for entry to comply with the Examiner's communication. The claims now differ even more significantly from the cited art, and are even more clearly consistent with the original specification and claims. The wording and scope of the claims maintain the wording and scope of the original disclosure and claims. Hopefully this will satisfy the Examiner and they will be entered. The Applicant requests that the Examiner explain reason for his statement if he disagrees.

THE CLAIMS DISTINGUISH OVER THE REFERENCES  
UNDER 35 U.S.C. 102(b)

25. Claims 1, 3-7 are rejected under 35 U.S.C. 102(b) as being anticipated by Masaaki (JP-06018683). For said rejection under 35 U.S.C. 102, the Applicant hereby does again fully and completely specify the errors in the rejection and the specific limitations in the rejected claims which are not described in the prior art relied on in the Office's rejection. Applicant also again explains how such limitations render the claimed subject matter novel over the prior art. As discussed below, several arguments were present to the Examiner who has ignored them substantively.

26. With all due respect, many of the cited references followed the present invention. The Examiner has been disingenuous that "loading" was not in the original specification. In fact, it was, as discussed above, and a Petition will be pending. In that light, and withstanding the Examiner's allegation, the applicant notes that the application Serial no. 07/ 371,937 --of which the present invention '480 is a continuation -- was filed 06/27/89. The date of Masaaki is March 7, 1992. Attention is directed to the fact that the present application, '480, precedes it; and therefore it is not relevant. Nonetheless, for argument's sake, and to demonstrate error in the Examiner's allegations, each will be discussed in detail.

27. The Examiner states,

*"Masaaki discloses an oscillating drive that facilitates fine-tuning of frequency of vibration. Knowledge of such frequency is necessary, e.g., to facilitate repeatability of operating conditions and results. Any one of the secondary references can provide the teaching for measurement of said frequency."*

**THE TRUTH - The Examiner Has Been Substantively Unresponsive,  
This was Discussed Previously**

The Examiner has been unresponsive to Applicant's arguments even though they were fully discussed in significant detail in the previous Communication from the Applicant to the Examiner on pages 16 through 27. For example, in said Communication, the Applicant took the time to respond to the Examiner and wrote the following comments.

**"Masaaki (06-018683) describes an oscillating electrode for normal temperature nuclear fusion which is very different from the present invention. JP-06-018683 --as it claims-- is simply an apparatus where the purpose of the oscillation is to "expanded the reaction area". Masaaki has a deuterium tank (18), a "negative electrode" (1) of "pure nickel plate plated with palladium or titanium". Masaaki resonates the electrode to increase the surface area. Masaaki says "the loss in the transmission of the vibration is limited thereby promoting normal**

**temperature nuclear fusion". In Masaaki, hydrogen gas is generated. In Masaaki, there is no loading, no discussion of loading, and no measurement of loading. Furthermore, in Masaaki, there is no measurement of frequency change of the vibrating electrode from loading, and no change in the frequency of the vibration. The vibrating cathode of Masaaki is used for a different reason and there is no measurement of loading. Masaaki resonates the electrode to increase the surface area. This is in contrast to the present application and invention where the loading occurs within the cathode and where the vibrations are used to measure loading. Thus, Masaaki (06-018683) is located quite far from the present invention, and it is improper to compare JP-06-018683 to the present invention."**

[from Applicant's previous Communication to the Examiner]

Attention is now directed to the fact that said comments in Applicant's Communication have simply been ignored by the Examiner. The Examiner did not cite Applicant's arguments, nor did the Examiner discuss Applicant's arguments, nor did the Examiner rebut Applicant's arguments. Therefore it is impossible to tell how the Examiner weighed Applicant's arguments; there is absolutely no way for the Applicant to present the Examiner's reasons for rejection to the Board of Appeals. Because the Examiner was requested to answer and respond with specificity, the Examiner has apparently ignored the Office rules, and expectations of reasonable people, and has defied the laws and regulations arising from the US Constitution which led to the creation of the Patent Office. Therefore, given the above, the Applicant hereby again requests to know the substantive precise reason, scientific basis, or authority which allows the Examiner to dismiss this Argument by the Applicant without citation, analysis, or substantive coherent response. Specifically, the Applicant hereby requests to know the scientific basis, or any basis which allows the Examiner to dismiss the Argument that,

**"The vibrating cathode of Masaaki is used for a different reason and there is no measurement of loading. Masaaki resonates the electrode to increase the surface area. This is in contrast to the present application and invention where the loading occurs within the cathode and where the vibrations are used to measure loading."**



28. The Examiner states,

*"Applicant's claim language reads on the figures in JP-06-018683 as follows: a) "means to drive vibration" reads on line winding 10".*

**THE TRUTH - The Examiner Has Been Substantively Unresponsive, This was Discussed Previously**

The Examiner has been substantively unresponsive because this was discussed in detail in the previous Communication from the Applicant to the Examiner on pages 17 through 19. For example, the Applicant wrote the following.

**"Applicant's claim language does NOT read on the figures, or the text, or the claims, or the description, of JP-06-018683. In fact, the Examiner confuses simple differential equations. Does "means to drive vibration" really read on line winding 10? No. In fact, in the case of the '480, a single pulse is given and then the impulse response is followed. This is a far cry from a fixed frequency motor used in Masaaki (06-018683), cited by the Examiner. In 480, the single pulse, which is the "means to drive vibration" enables a frequency measurement which is the response of the electrode. Thus, in 480, the single pulse and the subsequent frequency measurement enables measurement of the electrode loading. In differential calculus, the natural frequency(ies) is(are) called the homogeneous response. By contrast, in Masaaki (06-018683), cited by the Examiner, e.g. vide supra, the line winding 10, and the other features, create the particular (or driven) response which is dominated by the equipment of Masaaki (06-018683). In differential calculus this is called the driven (or particular solution) response. The Examiner is referred to "Advanced Calculus For Applications, Second Edition" by Francis Hildebrand (1976). On pages 72 through 76, and also page 88, in the section entitled "Applications To Linear Differential Equations With Constant Coefficients", there is a discussion of the significant differences between forced vibrations of the cited art (oscillations actually, in said cited art) and the natural vibration of a loaded cathode as is discussed in the above entitled application. The examiner is specifically referred to equations 28 through 37b which reveal these mathematics well-known to those skilled in the art. In addition, the Examiner is referred to "Theoretical Mechanics: An Introduction To Mathematical Physics" (1929) by Joseph Ames and Francis Murnaghan. The examiner is specifically referred to pages 24 pages 124 to 139 for the well-known differences between harmonic vibrations (especially page 129). In addition the Examiner is referred to "Analytical Mechanics" (1962) by Grant Fowles. The Examiner is specifically referred to pages 80 through 84 for that harmonic analytic physics which is well-known to those skilled in the art, but apparently not the Office. With respect to these harmonic motions resulting from restoring force, as discussed in the above-entitled application, the examiner is referred to pages 43 through 45. By contrast, with respect to forced harmonic motion discussed in the cited art, the examiner is also referred to pages 51 through 55. The examiner is referred to "Calculus And Analytical Geometry" (1951, and 1960) by George Thomas Jr. The examiner is particularly referred to pages 895 through 900. In summary, it is inaccurate for the examiner to substitute forced harmonic motion [with partial differential equations**

**having a particular solution] and the above entitled application where there is a vibration characterizing the loaded electrode, which is observed by its natural frequencies."**

**[from Applicant's previous Communication to the Examiner]**

Attention is now directed to the fact that said comments in Applicant's Communication have simply been ignored by the Examiner. It is impossible to tell how the Examiner weighed Applicant's arguments, there is absolutely no way for the Applicant to present the Examiner's reasons for rejection to the Board of Appeals. Because the Examiner was requested to answer and respond with specificity, given the above, the Applicant hereby again requests to know the substantive precise reason, scientific basis, or authority which allows the Examiner to dismiss this Argument by the Applicant without citation, analysis, or substantive coherent response. Specifically, the Applicant hereby requests to know the scientific basis, or any basis which allows the Examiner to dismiss the Argument that,

**"In summary, it is inaccurate for the examiner to substitute forced harmonic motion [with partial differential equations having a particular solution] and the above entitled application where there is a vibration characterizing the loaded electrode, which is observed by its natural frequencies."**

29. The Examiner states,

*"6. Claims 1, 3-7 are rejected under 35 U.S.C. 102(b) as being anticipated by JP-06 018683. This reference discloses a vibrating electrode apparatus for room temperature fusion comprising a palladium cathode that is resonantly vibrated. The vibrating cathode is electrochemically loaded with deuterium from an electrolyte containing said hydrogen isotope. Applicant's claim language reads on the figures in JP-06-018683 as follows:*

*b) "means to follow the frequency of vibration: reads on RF generator 11 that sets (i.e., "follows") the vibration frequency;*

### **THE TRUTH - The Examiner Has Been Substantively Unresponsive, This was Discussed Previously**

The Examiner has been unresponsive to Applicant's arguments even though they were fully discussed in significant detail in the previous Communication from the Applicant to the Examiner on pages 19 through 20. For example, in said Communication, the Applicant took the time to respond to the Examiner and wrote the following comments.

**"Applicant's claim language does NOT read on the figures, or the text, or the claims, or the description, of JP-06-018683. Does "means to follow the frequency of vibration" really read on "RF generator 11 that sets**

(i.e., "follows") the vibration frequency"? No. In the case of the '480, a single pulse is given and then the impulse response is followed. The subsequent frequency measurement enables measurement of the electrode loading. This homogeneous response, again, is far from the driven system used in Masaaki (06-018683), inaccurately cited by the Examiner. The Examiner cites the "RF generator 11" which the Examiner correctly states that "sets" the vibration frequency. The Examiner is disingenuous when he metamorphoses this to claim that it "follows" the vibration frequency. In fact, Masaaki (06-018683) disagrees with the Examiner. The translation (assuming the Examiner's translation is even correct) states "11 is the AC power supply" which obviously DRIVES the vibration. In '480, the invention works by examination of "the homogeneous response". By contrast, in Masaaki (06-018683), the driven response yields no information about the electrode, but only gives information about the drive system."

[from Applicant's previous Communication to the Examiner]

Attention is now directed to the fact that said comments in Applicant's Communication have simply been ignored by the Examiner. It is impossible to tell how the Examiner weighed Applicant's arguments; there is absolutely no way for the Applicant to present the Examiner's reasons for rejection to the Board of Appeals. Given the above, the Applicant hereby again requests to know the substantive precise reason, scientific basis, or authority which allows the Examiner to dismiss this Argument by the Applicant without citation, analysis, or substantive coherent response. Specifically, the Applicant hereby requests to know the scientific basis, or any basis which allows the Examiner to dismiss the Argument that,

"The Examiner cites the "RF generator 11" which the Examiner correctly states that "sets" the vibration frequency. The Examiner is disingenuous when he metamorphoses this to claim that it "follows" the vibration frequency. In fact, Masaaki (06-018683) disagrees with the Examiner. The translation (assuming the Examiner's translation is even correct) states "11 is the AC power supply" which obviously DRIVES the vibration. In '480, the invention works by examination of "the homogeneous response". By contrast, in Masaaki (06-018683), the driven response yields no information about the electrode, but only gives information about the drive system"

30. The Examiner states,

*"6. Claims 1, 3-7 are rejected under 35 U.S.C. 102(b) as being anticipated by JP-06 018683. This reference discloses a vibrating electrode apparatus for room temperature fusion comprising a palladium cathode that is resonantly vibrated. The vibrating cathode is electrochemically loaded with deuterium from an electrolyte containing said hydrogen isotope.*

*Applicant's claim language reads on the figures in JP-06-018683 as follows:*

*c) "second mass" reads on structure that is coupled to the vibrating cathode at its exterior.*

**THE TRUTH - The Examiner Has Been Substantively Unresponsive, This was Discussed Previously**

The Examiner has been unresponsive to Applicant's arguments even though they were fully discussed in significant detail in the previous Communication from the Applicant to the Examiner on page 20. For example, in said Communication, the Applicant took the time to respond to the Examiner and wrote the following comment.

**"Applicant's claim language does NOT read on the figures, or the text, or the claims, or the description, of JP-06-018683. Does "second mass" really read on "structure that is coupled to the vibrating cathode at its exterior"? No. In the case of the '480, the natural frequency of the electrode is used to determine, via the impulse response, the loading of said electrode. This homogeneous response, of the present invention (vide supra), is far from the driven system used in Masaaki (06-018683), yet again inaccurately cited by the Examiner.**

**As the original specification of '480 states (page 16),**

**"Yet another monitoring configuration involves the use of a second external mass coupled to the above cited large external mass. Forced mechanical vibration of said second external mass will eventually couple phonons to the cathode and thereby cause it to vibrate at its own natural frequency."**

**By contrast, the Masaaki structure that is coupled to the vibrating cathode at its exterior is used to hold the electrode and not drive it. Once again the Examiner confuses natural frequency and homogeneous response with clamp used to hold Masaaki's driven system.**

Attention is now directed to the fact that said comment in Applicant's Communication has simply been ignored by the Examiner. The Examiner did not cite Applicant's arguments, nor did the Examiner discuss Applicant's arguments, nor did the Examiner rebut Applicant's arguments. Therefore it is impossible to tell how the Examiner weighed Applicant's arguments; there is absolutely no way for the Applicant to present the Examiner's reasons for rejection to the Board of Appeals. Because the Examiner was requested to answer and respond with specificity, the Examiner has apparently ignored the Office rules, and expectations of reasonable people. Therefore, given the above, the Applicant hereby again requests to know the substantive precise reason, scientific basis, or authority which allows the Examiner

to dismiss this Argument by the Applicant without citation, analysis, or substantive coherent response.

Specifically, the Applicant hereby requests to know the scientific basis, or any basis which allows the Examiner to dismiss the Argument that,

**"In the case of the '480, the natural frequency of the electrode is used to determine, via the impulse response, the loading of said electrode. This homogeneous response, of the present invention (vide supra), is far from the driven system used in Masaaki (06-018683), yet again inaccurately cited by the Examiner. .. By contrast, the Masaaki structure that is coupled to the vibrating cathode at its exterior is used to hold the electrode and not drive it. Once again the Examiner confuses natural frequency and homogeneous response with clamp used to hold Masaaki's driven system."**

31. The Examiner has been unresponsive to Applicant's arguments which the Applicant took the time to write to the Examiner, as in following comments and questions.

**"The Examiner is wrong for several reasons. First, the invention at issue in this case, '480, is claimed by Claims 1-20, and is generally speaking a vibrating electrode, composed of a metal such as palladium which has internal filling ("loading") with hydrogen, which is monitored for its natural frequency to reveal information about the loading, *in situ*, and non-invasively. Second, '480 has elements which are nowhere in JP-06-018683, or in any combination of the Examiner's cited art. Second, the Examiner has ignored that in the present invention, additional techniques are used and features exist, unlike JP-06-018683. Third, JP-06-018683 includes none of the features of the present invention. Where in JP-06-018683 is the vibrational cathode of the present invention used to measure loading? It is shown in Figures 1,2,3, and 4 of the original specification of the above-entitled invention. It is not in JP-06-018683.**

**Where in JP-06-018683 is the optical interrogating beam or other method to investigate the frequency of the vibrational cathode? It is shown in Figures 1, 2 and 3 of the original specification of the above-entitled invention. They are not in JP-06-018683.**

**Where in JP-06-018683 is the optical beam (labeled as number 12 in Figure 1), or the optical irradiator subsystem (labeled as number 30), or the optical detection subsystem (labeled as number 31)? They are shown in Figures 1,2 and 3 of the original specification of the above-entitled invention. They are not in JP-06-018683. Where in JP-06-018683 is the laser (labeled as number 18), the transparent windows (labeled as number 17), or the optical irradiator subsystem and optical detection subsystem (labeled as numbers 30 and 31)? They are shown in Figures 1,**

2 and 3 of the original specification of the above-entitled invention. They are not in JP-06-018683.

Where in JP-06-018683 is the optical lenses and/or beam splitters (labeled as number 19), or the detector subsystem, containing the optical detectors (e.g. a phototransistor (labeled as number 20), or the event detector (e.g. Schmidt trigger) to detect transitions (labeled as number 21), or the frequency counter (labeled as number 22)? They are shown in Figures 1, 2 and 3 of the original specification of the above-entitled invention. They are not in JP-06-018683.

Where in JP-06-018683 is the lower large mass (labeled as number 11), or the "springy" material to alter the resonant frequency of the vibrating cathode (number 13), or the large mass (labeled as number 14) located outside of the reaction cell? They are not in JP-06-018683.

Where in JP-06-018683 is the modified cathode (labeled as number 1) with two sites on said cathode where platinum wires are attached (labeled as number 71 and 72 in Figure 5) which are used to create said intraelectrode additional electric field? Where in JP-06-018683 is the additional electric field internal to the loaded cathode, which in the present application is clearly shown in figure 5? They are not in JP-06-018683.

Where in JP-06-018683 is the teaching of controlling a volume within the loaded cathode using an additional electric field and an orthogonal applied magnetic field intensity as taught in the present invention? Where in JP-06-018683 is the applied magnetic field intensity orthogonal to the additional applied electric field? They are not in JP-06-018683. .... The Examiner has ignored the purposes and results, which are different. Masaaki (06-018683) is an oscillating electrode to have "expanded the reaction area". Masaaki resonates the electrode to increase the surface area. In Masaaki, there is no discussion of loading, and no measurement of loading. Furthermore, in Masaaki, there is no measurement of frequency change of the vibrating electrode from loading, and no change in the frequency of the vibration. In summary, the material of Applicant's invention, '480, does not read on JP-06-018683, as the Examiner suggests. This present invention is novel and not anticipated by the cited art, JP-06-018683."

[from Applicant's previous Communication to the Examiner]

Attention is now directed to the fact that said comments in Applicant's Communication have simply been ignored by the Examiner. Attention is now also directed to the fact that the questions in Applicant's Communication have also been ignored by the Examiner. The Commissioner, and Court, should note that the Examiner did not cite Applicant's arguments, nor did the Examiner discuss Applicant's arguments, nor did the Examiner rebut Applicant's arguments. Therefore it is impossible to tell how the Examiner weighed Applicant's arguments; there is

absolutely no way for the Applicant to present the Examiner's reasons for rejection to the Board of Appeals. Because the Examiner was requested to answer and respond with specificity, the Examiner has apparently ignored the Office rules, and expectations of reasonable people, and has defied the laws and regulations arising from the US Constitution which led to the creation of the Patent Office. Therefore, given the above, the Applicant hereby again requests to know the substantive precise reason, scientific basis, or authority which allows the Examiner to dismiss this Argument by the Applicant without citation, analysis, or substantive coherent response. Specifically, the Applicant hereby requests to know the scientific basis, or any basis which allows the Examiner to dismiss the Argument that,

**"The Examiner has ignored the purposes and results, which are different. Masaaki (06-018683) is an oscillating electrode to have "expanded the reaction area". Masaaki resonates the electrode to increase the surface area. In Masaaki, there is no discussion of loading, and no measurement of loading. Furthermore, in Masaaki, there is no measurement of frequency change of the vibrating electrode from loading, and no change in the frequency of the vibration."**

32. Also ignored by the Examiner is the following by the Applicant,

**"Where in the cited references is the vibrational cathode to measure loading of the electrode, as featured in the present invention? It is shown in Figures 1,2,3, and 4 of the original specification of the above-entitled invention. It is not in the cited references. Where in the cited references is the additional electric field internal to the loaded cathode, clearly shown in figure 5? It is not in the cited references. Where in the cited references are the two additional electrodes on the sides of the loaded cathode (71 and 72, in figure 4) which are used to create said intraelectrode additional electric field? They are not in the cited references. Where in the cited references is the optical beam or other method to investigate said vibrational cathode to measure loading of the electrode, as is done in the present invention? It is shown in Figures 1, 2 and 3 of the original specification of the above-entitled invention. It is not in the cited references. Where in the cited references is the teaching of controlling a volume within the loaded cathode using an additional electric field and an orthogonal applied magnetic field intensity as taught in the present invention? It is shown in Figure 5 and taught in the original specification of the above-entitled invention. It is not in the cited references. The only reasonable conclusion is that the present invention is novel, not obvious, and is distinguished from all previous, and cited, art.**

[from Applicant's previous Communication to the Examiner]

Attention is now directed to the fact that said comments in Applicant's Communication have simply been ignored by the Examiner. Attention is now also directed to the fact that the questions in Applicant's Communication have also been ignored by the Examiner. The Commissioner, and Court, should note that the Examiner did not cite Applicant's arguments, nor did the Examiner discuss Applicant's arguments, nor did the Examiner rebut Applicant's arguments. Therefore it is impossible to tell how the Examiner weighed Applicant's arguments; there is absolutely no way for the Applicant to present the Examiner's reasons for rejection to the Board of Appeals. The Applicant hereby requests to know the scientific basis, or any basis which allows the Examiner to dismiss the Argument that,

**"Where in the cited references is the vibrational cathode to measure loading of the electrode, as featured in the present invention? It is shown in Figures 1,2,3, and 4 of the original specification of the above-entitled invention. It is not in the cited references."**



## ARGUMENT - Claim Rejections under 35 USC § 103

33. Claims 8-20 are rejected under 35 U.S.C.103(a) as being unpatentable over JP 06-018683 in view of any one of Wang et al. (U.S. 5,495,767), Steinlecher et al. (U.S. 5,883,715) or Zang et al. (U.S. 5,838,439). With all due respect, many of the cited references followed the present invention. The Examiner has been disingenuous that "loading" was not in the original specification. In fact, it was, as discussed above, and a Petition will be pending. In that light, and withstanding the Examiner's allegation, the applicant notes that the application Serial no. 07/ 371,937 --of which the present invention '480 is a continuation-- was filed 06/27/89. The date of Masaaki is March 7, 1992. The date of Zang is Nov. 17, 1998. The date of Steinlechner is March 16, 1999. The date of Wang is March 5th, 1996. Attention is directed to the fact that the present application, '480, precedes all of these; and therefore they are not relevant. Nonetheless, for argument's sake, and to demonstrate error in the Examiner's allegations, each will be discussed in detail.

34. The Examiner states,

*"JP-06-018683 discloses the applicant's claims except for the laser measurement of the vibration frequency of the cathode. Anyone of Wang et al., Steiniecher et al., or Zang et al. disclose a laser vibrometer for remotely measuring the vibration frequency of an object. ....Applicant arguments traversing the use of Wang, Steiniechner or Zang to reject claims 8-20 have been fully considered but they are not persuasive. Applicant has not shown that the references do not teach what the examiner has stated they teach, nor, has the applicant shown that the examiner's reasoning for and manner of combining the teachings of the references is improper or invalid."*

### **THE TRUTH - The Examiner Has Been Substantively Unresponsive, This was Discussed Previously**

The Examiner has been unresponsive to Applicant's arguments even though they were fully discussed in significant detail in the previous Communication from the Applicant to the Examiner on pages 33 through 45. For example, in said Communication, the Applicant took the time to respond to the Examiner and wrote the following comments.

**"Wang, Steiniecher, Zang, or JP-06-018683 DOES NOT disclose the applicant's claims except for the laser measurement of the vibration frequency of the cathode. The Examiner has ignored that in the present invention, additional techniques are used and features exist, and unlike Wang, Steiniecher, Zang, or JP-06-018683. The invention at issue in this case, '480, is claimed by Claims 1-20, and is generally speaking a vibrating electrode, composed of a metal such as palladium which has internal filling ("loading") with hydrogen, which is monitored for its natural frequency to reveal information about the loading, *in situ*, and non-invasively. Wang, Steiniecher, Zang, or JP-06-018683 includes none of the features of the present invention. Zang (5,836,439) is a heterodyned self mixing laser diode vibrometer. Zang measures remote**

vibration by Doppler measurement. Zang uses a frequency shifting element (6), a lens (8), a frequency modulated demodulator (31) and an impedance amplifier (5). Zang also requires an acoustic-optic demodulator (25) and a beam dump (56). Zang combines an external two path frequency shifting technique with a heterodyned detection. The date of Zang is Nov. 17, 1998. The applicant notes that the application Serial no. 07/ 371,937 --of which the present invention '480 is a continuation -- was filed 06/27/89 which is prior to Zang. In Zang there is no loading. Furthermore, Zang does not measure loading. Steinlechner (5,883,715) is a laser vibrometer for vibration measurements. Steinlechner uses a polarization beam splitter (3), lens (2), two quarter wave plates (6 and 7), and an optical detour (13) or an arm of an interferometer (13). In Steinlechner, the optical beam is reflected by the object, superimposed as an interference signal, and the two reflected beams sent to electronic equipment (10). A current modulator (11) is used. The date of Steinlechner is March 16, 1999. The applicant notes that the application Serial no. 07/ 371,937 --of which the present invention '480 is a continuation -- was filed 06/27/89 which is prior to Steinlechner. In Steinlechner there is no loading. Furthermore, Steinlechner does not measure loading. Wang (5,495,767) is a laser vibrometer. Wang uses a digitizer, two optical sensors, a digital signal, and a flip-flop circuit. Wang uses a series of splitters, polarizers, and other elements to measure rate at which a target vibrates. The date of Wang is March 5th, 1996. The applicant notes that the application Serial no. 07/ 371,937 --of which the present invention '480 is a continuation -- was filed 06/27/89 which is prior to Wang. In Wang there is no loading. Furthermore, Wang does not measure loading. Where in Wang, Steiniecher, Zang, or JP-06-018683 is the vibrational cathode of the present invention used to measure loading? It is shown in Figures 1,2,3, and 4 of the original specification of the above-entitled invention. It is not in Wang, Steiniecher, Zang, or JP-06-018683."

[from Applicant's previous Communication to the Examiner]

Attention is now directed to the fact that said comments in Applicant's Communication have simply been ignored by the Examiner. The Examiner did not cite Applicant's arguments, nor did the Examiner discuss Applicant's arguments, nor did the Examiner rebut Applicant's arguments. Therefore it is impossible to tell how the Examiner weighed Applicant's arguments; there is absolutely no way for the Applicant to present the Examiner's reasons for rejection to the Board of Appeals. The Applicant hereby again requests to know the substantive precise reason, scientific basis, or authority which allows the Examiner to dismiss this Argument by the Applicant without citation, analysis, or substantive coherent response. Specifically, the Applicant hereby requests to know the scientific basis, or any basis which allows the Examiner to dismiss the Argument that,

"Where in Wang, Steiniecher, Zang, or JP-06-018683 is the vibrational cathode of the present invention used to measure loading? It is shown in Figures 1,2,3, and 4 of the original specification of the above-entitled invention."

35. Also ignored by the Examiner is the following questions by the Applicant, "Where in Wang, Steiniecher, Zang, or JP-06-018683 is the optical interrogating beam or other method to investigate the frequency of the vibrational cathode to determine loading? It is shown in Figures 1, 2 and 3 of the original specification of the above-entitled invention. They are not in Wang, Steiniecher, Zang, or JP-06-018683.

Where in Wang, Steiniecher, Zang, or JP-06-018683 is the optical lenses and/or beam splitters (labeled as number 19), or the detector subsystem, containing the optical detectors (e.g. a phototransistor (labeled as number 20), or the event detector (e.g. Schmidt trigger) to detect transitions (labeled as number 21), or the frequency counter (labeled as number 22) to investigate the frequency of the vibrational cathode to determine loading? They are shown in Figures 1,2 and 3 of the original specification of the above-entitled invention. They are not in Wang, Steiniecher, Zang, or JP-06-018683.

Where in Wang, Steiniecher, Zang, or JP-06-018683 is the lower large mass (labeled as number 11), or the "springy" material to alter the resonant frequency of the vibrating cathode (number 13), or the large mass (labeled as number 14) located outside of the reaction cell? They are not in Wang, Steiniecher, Zang, or JP-06-018683.

Where in Wang, Steiniecher, Zang, or JP-06-018683 is the modified cathode (labeled as number 1) with two sites on said cathode where platinum wires are attached (labeled as number 71 and 72 in Figure 5) which are used to create said intraelectrode additional electric field?

Where in Wang, Steiniecher, Zang, or JP-06-018683 is the additional electric field internal to the loaded cathode, which in the present application is clearly shown in figure 5? They are not in Wang, Steiniecher, Zang, or JP-06-018683.

Where are these features in Wang, Steiniecher, Zang, or JP-06-018683 like the Examiner falsely purports? None of these are present in Wang, Steiniecher, Zang, or JP-06-018683. "

[from Applicant's previous Communication to the Examiner]

Attention is now also directed to the fact that the questions in Applicant's Communication have also been ignored by the Examiner. The Commissioner, and Court, should note that the Examiner did not cite Applicant's arguments, nor did the Examiner discuss Applicant's arguments, nor did the Examiner rebut Applicant's arguments. Therefore it is impossible to tell how the Examiner weighed Applicant's arguments; there is absolutely no way for the Applicant to present the Examiner's reasons for rejection to the Board of Appeals. The Applicant hereby again requests to know the substantive precise reason, scientific basis, or authority which allows the Examiner to dismiss this Argument by the Applicant without citation, analysis, or substantive coherent response. Specifically, the Applicant hereby requests to know the scientific basis, or any basis which allows the Examiner to dismiss the Arguments above.

36. The Examiner states,

*"JP-06-018683 discloses an oscillating drive that facilitates fine-tuning of frequency of vibration. Knowledge of such frequency is necessary, e.g., to facilitate repeatability of operating conditions and results. Any one of the secondary references can provide the teaching for measurement of said frequency.*

*Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the apparatus, as disclosed by JP-06018683, by the teaching of any one of Wang et al., Steinlecher et al., or Zang et al. to include a laser vibrometer to gain the advantages thereof (i.e., precise frequency information), because such modification is no more than the use of well known expedient for measuring vibration frequency within the art."*

**THE TRUTH - The Examiner Has Been Substantively Unresponsive,  
This was Discussed Previously**

The Examiner has been unresponsive to Applicant's arguments even though they were fully discussed in significant detail in the previous Communication from the Applicant to the Examiner on pages 35 through 58. For example, in said Communication, the Applicant took the time to respond to the Examiner and wrote the following comments and questions.

**"47. .. The Examiner has ignored that in the present invention, additional techniques are used and features exist, and unlike Wang, Steiniecher, Zang, or JP-06-018683. Third, Wang, Steiniecher, Zang, and JP-06-018683 do not include the important features of the present invention. Where in Wang, Steiniecher, Zang, or JP-06-018683 is the vibrational cathode of the present invention used to measure loading? It is shown in Figures 1,2,3, and 4 of the original specification of the above-entitled invention. It is not in Wang, Steiniecher, Zang, or JP-06-018683. Where in Wang, Steiniecher, Zang, or JP-06-018683 is the optical interrogating beam or other method to investigate the frequency of the vibrational cathode which measures loading? It is shown in Figures 1, 2 and 3 of the original specification of the above-entitled invention. They are not in Wang, Steiniecher, Zang, or JP-06-018683. Where in JP-06-018683 is the transparent windows (labeled as number 17)? It is shown in Figures 1, 2 and 3 of the original specification of the above-entitled invention. They are not in Wang, Steiniecher, Zang, or JP-06-018683. Where in Wang, Steiniecher, Zang, or JP-06-018683 are the event detector (e.g. Schmidt trigger) to detect transitions (labeled as number 21), or the frequency counter (labeled as number 22)? They are in the original specification of the above-entitled invention. They are not in Wang, Steiniecher, Zang, or JP-06-018683. Where in Wang, Steiniecher, Zang, or JP-06-018683 is the lower large mass (labeled as number 11), or the "springy" material to alter the resonant frequency of the vibrating cathode (number 13), or the large mass (labeled as number 14) located outside of the reaction cell? They are not in Wang, Steiniecher, Zang, or JP-06-018683. Where in Wang, Steiniecher, Zang, or JP-06-018683 is the modified cathode (labeled as number 1) with two sites on said cathode where platinum wires are attached (labeled as number 71 and 72 in Figure 5) which are used to create said**

intraelectrode additional electric field? Where in Wang, Steiniecher, Zang, or JP-06-018683 is the additional electric field internal to the loaded cathode, which in the present application is clearly shown in figure 5? They are not in Wang, Steiniecher, Zang, or JP-06-018683. Where in Wang, Steiniecher, Zang, or JP-06-018683 is the teaching of controlling a volume within the loaded cathode using an additional electric field and an orthogonal applied magnetic field intensity as taught in the present invention? Where in Wang, Steiniecher, Zang, or JP-06-018683 is the applied magnetic field intensity orthogonal to the additional applied electric field? They are not in Wang, Steiniecher, Zang, or JP-06-018683. Where are these features in Wang, Steiniecher, Zang, or JP-06-018683 like the Examiner falsely purports? None of these are present in Wang, Steiniecher, Zang, or JP-06-018683."

[from Applicant's previous Communication to the Examiner]

Attention is now also directed to the fact that the questions in Applicant's Communication have also been ignored by the Examiner. The Commissioner, and Court, should note that the Examiner did not cite Applicant's arguments, nor did the Examiner discuss Applicant's arguments, nor did the Examiner rebut Applicant's arguments. The Examiner was requested to answer and respond with specificity. Therefore, given the above, the Applicant hereby again requests to know the substantive precise reason, scientific basis, or authority which allows the Examiner to dismiss this Argument by the Applicant without citation, analysis, or substantive coherent response. Specifically, the Applicant hereby requests to know the scientific basis, or any basis which allows the Examiner to dismiss these arguments.

37. Also ignored by the Examiner is the following by the Applicant,
48. The Examiner has ignored the fact that the purposes and result are different. Masaaki (06-018683) is a vibrating electrode to have "expanded the reaction area". Masaaki resonates the electrode to increase the surface area. In Masaaki, there is no discussion of loading, and no measurement of loading. Furthermore, in Masaaki, there is no measurement of frequency change of the vibrating electrode from loading, and no change in the frequency of the vibration. Zang (5,836,439) is a heterodyned self mixing laser diode vibrometer. Zang measures remote vibration by Doppler measurement. Zang uses a frequency shifting element (6), a lens (8), a frequency modulated demodulator (31) and an impedance amplifier (5). Zang also requires an acoustic-optic demodulator (25) and a beam dump (56). Zang combines an external two path frequency shifting technique with a heterodyned detection. In Zang there is no loading. Furthermore, Zang does not measure loading. Steinlechner (5,883,715) is a laser vibrometer for vibration measurements. Steinlechner uses a polarization beam splitter (3), lens (2), two quarter wave plates (6 and 7), and an optical detour (13) or an arm of an interferometer (13). In Steinlechner, the optical beam is reflected by the object, superimposed as an interference signal, and the

two reflected beams sent to electronic equipment (10). A current modulator (11) is used. In Steinlechner there is no loading. Furthermore, Steinlechner does not measure loading. Wang (5,495,767) is a laser vibrometer. Wang uses a digitizer, two optical sensors, a digital signal, and a flip-flop circuit. Wang uses a series of splitters, polarizers, and other elements to measure rate at which a target vibrates. In Wang there is no loading. Furthermore, Wang does not measure loading. In summary, it is clear that the material of Applicant's invention, '480, does not read on.... the other cited art, or any combination thereof, as the Examiner suggests.

[from Applicant's previous Communication to the Examiner]

Attention is now directed to the fact that said comments in Applicant's Communication have simply been ignored by the Examiner. The Commissioner, and Court, should note that the Examiner did not cite Applicant's arguments, nor did the Examiner discuss Applicant's arguments, nor did the Examiner rebut Applicant's arguments. Therefore it is impossible to tell how the Examiner weighed Applicant's arguments; there is absolutely no way for the Applicant to present the Examiner's reasons for rejection to the Board of Appeals. Because the Examiner was requested to answer and respond with specificity, the Examiner has apparently ignored the Office rules, and expectations of reasonable people, and has defied the laws and regulations arising from the US Constitution which led to the creation of the Patent Office. Therefore, given the above, the Applicant hereby again requests to know the substantive precise reason, scientific basis, or authority which allows the Examiner to dismiss this Argument by the Applicant without citation, analysis, or substantive coherent response.

38. Also ignored by the Examiner is the following by the Applicant citing Higley v. Brenner,

"49. The material of Applicant's invention, '480, does not read on ... Wang, Steinlecher, Zang, JP-06-01868, or the other cited art, as the Examiner suggests (*supra*). Furthermore, the Examiner's use of the combinations including ... JP 06-018683 in view of any one of Wang et al. (U.S. 5,495,767), Steinlecher et al. (U.S. 5,883,715) or Zang et al. (U.S. 5,838,439) is improper because of any one of the following are sufficient reasons.

None of the cited references, ...JP 06-018683, Wang et al. (U.S. 5,495,767), Steinlecher et al. (U.S. 5,883,715) or Zang et al. (U.S. 5,838,439) suggests, alludes to, or teaches the precise structure as defined by Claims 1-20. As said in Ex parte Fleischmann, 157 USPQ 155, 156 Bd. of Appeals 1967): 'While as an abstract proposition it might be possible to select features from the secondary references, as the examiner has done, and mechanically combine them with the (other citation) to arrive at appellant's claimed combination, we find absolutely no basis for making such combination neither disclosed nor suggested in the patents relied on.'

On the matter of combining references under Section 103, no better expression of the law is found than that in Higley v. Brenner, Cmr. Pats., 155 USPQ 481, 484 (CADC 1967): 'The obviousness question here revolves around the Patent Office's combining prior references. Reliance may properly be placed on such a combination to negative patentability where the applicant's subject matter is suggested or 'taught' by the prior references. Application of Van Deventer, 223 F.2d 274, 276 106 USPQ 121, 123 (CCPA 1955); Application of Demarche, 219 F.2d 952, 956, 105 USPQ 65, 69 (CCPA 1955).' 'The test of obviousness, however, must be applied as of the time of the invention and not retrospectively as of the time of the suit. Many things may seem obvious after they have been made and for this reason courts should guard against slipping into the use of hindsight'.

[from Applicant's previous Communication to the Examiner]

Attention is now directed to the fact that said comments in Applicant's Communication have simply been ignored by the Examiner. The Examiner did not cite Applicant's arguments, nor did the Examiner discuss Applicant's arguments, nor did the Examiner rebut Applicant's arguments. Therefore it is impossible to tell how the Examiner weighed Applicant's arguments; there is absolutely no way for the Applicant to present the Examiner's reasons for rejection to the Board of Appeals. The Applicant hereby again requests to know the substantive precise reason, scientific basis, or authority which allows the Examiner to dismiss this Argument by the Applicant without citation, analysis, or substantive coherent response.

39. Also ignored by the Examiner is the following by the Applicant citing *In re Duva*,

**"Where is the method of the claims taught in the cited references? How were all portions of the claims considered in determining obviousness? With respect to evaluation of claims under 35 U.S.C. 103, 'every portion of the ... claims must be considered in determining ... obviousness' [emphasis added; *In re Duva*, 156 USPQ 90, 94 (CCPA 1967)]. The Court, in reversing the Office in *In re Kuderna and Phillips*, 165 USPQ 575, 578- (CCPA 1970), referred to the 'sum of the relevant teaching in the art, ' pointing out that the Office is not allowed to 'view ... first one and then another of isolated teachings' when determining that 'the subject matter as a whole would have been obvious at the time the invention was made', as required by 35 U.S.C. 103.**

**Does Wang et al. (U.S. 5,495,767), Steinlecher et al. (U.S. 5,883,715) or Zang et al. (U.S. 5,838,439) describe a method to reveal information about the loading, *in situ*, and non-invasively using .a vibrating electrode, composed of a metal such as palladium which has internal filling ("loading") with hydrogen, which is monitored for its natural frequency? No."**

[from Applicant's previous Communication to the Examiner]

Attention is now directed to the fact that said comments in Applicant's Communication have simply been ignored by the Examiner. Attention is now also directed to the fact that the questions in Applicant's Communication have also been ignored by the Examiner. Because the Examiner was requested to answer and respond with specificity, the Applicant hereby again requests to know the substantive precise reason, scientific basis, or authority which allows the Examiner to dismiss this Argument by the Applicant without citation, analysis, or substantive coherent response.



40. Also ignored by the Examiner is the following by the Applicant citing In re Shuman and Meinhardt,

**"50. Particularly pertinent is In re Shuman and Meinhardt, 150 USPQ 54, 57 (CCPA 1966) wherein the court said:**

**'References are evaluated by ascertaining the facts fairly disclosed therein as a whole. It is impermissible to first ascertain ... what appellants did and then view the prior art in such a manner as to select from the random facts of that art only those which may be modified and the utilized to reconstruct appellant's invention from such prior art. '[Emphasis added.]**

**Does Wang et al. (U.S. 5,495,767), Steinlecher et al. (U.S. 5,883,715) or Zang et al. (U.S. 5,838,439)s function, and operate, as the Examiner purports? No."**

Attention is now directed to the fact that said comments in Applicant's Communication have simply been ignored by the Examiner. It is impossible to tell how the Examiner weighed Applicant's arguments; there is absolutely no way for the Applicant to present the Examiner's reasons for rejection to the Board of Appeals. The Applicant hereby again requests to know the substantive precise reason, scientific basis, or authority which allows the Examiner to dismiss this Argument by the Applicant without citation, analysis, or substantive coherent response. Specifically, the Applicant hereby requests to know the scientific basis, or any basis which allows the Examiner to dismiss the Argument.

41. Also ignored by the Examiner is the following by the Applicant citing In re Wilson and In re Benson and Tabbott,

**"It is basic that the claims define the invention. The courts have said that: 'All words in a claim must be considered in judging the patentability of that claim against the prior art ... ', In re Wilson, 165 USPQ 494 (CCPA 1970). The terms in the claims 'should be given the meaning they would have 'to one of ordinary skill in the pertinent art when read in the light of and consistently with the specification ...', In re Benson and Tabbott, 169 USPQ 548, 552 (CCPA 1971).**

**The Court of Custom and Patent Appeals in In re Langer and Haynes, 175 USPQ 169, 171 (CCPA 1972) and as to a rejection based upon prior art teachings, said: 'This court has said that '(a)ll of the disclosures in a reference must be evaluated for what they fairly teach (emphasis added) one of the ordinary skill in the art.'**

**The figures and claims of JP 06-018683, Wang et al. (U.S. 5,495,767), Steinlecher et al. (U.S. 5,883,715) or Zang et al. (U.S. 5,838,439), are intended to, and do, serve a different purpose than does the figures and claims in the present invention, and each adds nothing of substance to the other. None of the references suggests, alludes to, or teaches a structure as defined by the claims of this invention or the Figures therein.**

[from Applicant's previous Communication to the Examiner]

Attention is now directed to the fact that said comments in Applicant's Communication have simply been ignored by the Examiner. The Examiner did not cite Applicant's arguments, nor did the Examiner discuss Applicant's arguments, nor did the Examiner rebut Applicant's arguments. Therefore it is impossible to tell how the Examiner weighed Applicant's arguments; there is absolutely no way for the Applicant to present the Examiner's reasons for rejection to the Board of Appeals. The Examiner was requested to answer and respond with specificity, the Examiner has apparently ignored the Office rules, and expectations of reasonable people. Therefore, given the above, the Applicant hereby again requests to know the substantive precise reason, scientific basis, or authority which allows the Examiner to dismiss this Argument by the Applicant without citation, analysis, or substantive coherent response. Specifically, the Applicant hereby requests to know the scientific basis, or any basis which allows the Examiner to dismiss the Argument.

42. Also ignored by the Examiner is the following by the Applicant,

**"51. There is no suggestion in the references themselves that they be combined, or could be combined. Where was the suggestion of the desirability of the modification? Indeed, neither of the references suggests, alludes to, or teaches a structure as defined by the claims of this invention, and as should be apparent? The need for the prior art references themselves to suggest that they can be combined is well known. Therefore, of what relevance then is ... JP 06-018683, Wang et al. (U.S. 5,495,767), Steinlecher et al. (U.S. 5,883,715) or Zang et al. (U.S. 5,838,439)?"**

[from Applicant's previous Communication to the Examiner]

Attention is now directed to the fact that this has been ignored by the Examiner. Thus, it is impossible to tell how the Examiner weighed Applicant's arguments. There is absolutely no way for the Applicant to present the Examiner's reasons for rejection to the Board of Appeals. The Applicant hereby again requests to know the substantive precise reason, scientific basis, or authority which allows the Examiner to dismiss this Argument by the Applicant without citation, analysis, or substantive coherent response. Specifically, the Applicant hereby requests to know the scientific basis, or any basis which allows the Examiner to dismiss the Argument that,

**"Where was the suggestion of the desirability of the modification?"**

43. Also ignored by the Examiner is the following by the Applicant citing *In re Mercier* and *In re Sernaker*,

**"On the matter of applying references to claimed subject matter [eg. cf. *In re Mercier*, 185 U.S.P.Q. 774, (CCPA, 1975)]: 'These and other questions arise because the board's approach fails to recognize that all of the relevant teachings of the cited references must be considered in determining what they fairly teach to one having ordinary skill in the art. \* \* \* 'The relevant portions of a reference include not only those teachings which would suggest particular aspects of an invention to one having ordinary skill in the art, but also those teachings which would lead such a person away from the cited invention.'**

**As was stated in *In re Sernaker*, 217 U.S.P.Q. 1,6 (CAPC 1983)]: '(P)rior art references in combination do not make an invention obvious unless something in the prior art references would suggest that advantage to be derived from combining their teachings.'**

**The suggestion to combine the references should come from the prior art, rather than from applicant. As was forcefully stated in *Orthopedic Equipment Co. Inc. v. United States*, 217 U.S.P.W. 193, 199 (CAPC 1983): 'It is wrong to use the patent in suit [here the patent application] as a guide through the maze of prior art references, combining the right references in the right way to achieve the result of the claims in suit [here the claims at issue]. Monday morning quarterbacking is quite improper when responding the question of nonobviousness in a court of law [here the Office].'**

**[from Applicant's previous Communication to the Examiner]**

Attention is now directed to the fact that said comments in Applicant's Communication have simply been ignored by the Examiner. Therefore it is impossible to tell how the Examiner weighed Applicant's arguments; there is absolutely no way for the Applicant to present the Examiner's reasons for rejection to the Board of Appeals. The Applicant hereby requests to know the scientific basis, or any basis which allows the Examiner to dismiss this Argument.

44. Also ignored by the Examiner is the following by the Applicant citing *In re Umbrecht* and *In re Noznik*,

**"There is no teaching in the references that would support the combination the Office uses to reject the claims. The applicable law will now be noted in greater detail. In this case, the Examiner uses JP 06-018683 and then misrepresents Wang et al. (U.S. 5,495,767), Steinlecher et al. (U.S. 5,883,715), Zang et al. (U.S. 5,838,439), purporting them to be the present invention. But they are not. Furthermore, in order to combine references there must be a 'suggestion of the desirability' of the combination, *In re Noznik*, Tatter and Obenauf, 178 USPQ 43, 45 (CCPA 1973). That holding is the reason why the origin of the combination must be given weight -- not only the possibility of such combination; see the reference to 'motivation or reason in**

Chicago Rawhide {\*\*} which focuses quite clearly on the rationale of recent decisions of the Court of Appeals for the Federal Circuit (CAFC) on the issue of obviousness, as discussed, for example, in *In re Gordon*, 221 USPQ 1125 (Fed. Cir. 1984), wherein the court said at page 1127: 'The mere fact that the prior art could be so modified should not have made the modification obvious unless the prior art suggested the desirability of the modification. [Emphasis added] [{\*\*}] Ex parte Chicago Rawhide Manufacturing Co., 223 USPQ 351, 353 (Bd. of App. 1984)']

53. There would be no reason for one skilled in the art to combine JP 06-018683 and either Wang et al. (U.S. 5,495,767), Steinlecher et al. (U.S. 5,883,715) or Zang et al. (U.S. 5,838,439) and then twist, blend, and confabulate, their uses, function, operation, purposes, and control systems to purportedly obtain the present invention as the Examiner has done. Furthermore, there is no suggestion in the references themselves that they be combined, or could be combined that way. Thus the applicant submits that any combination of JP 06-018683, Wang et al. (U.S. 5,495,767), Steinlecher et al. (U.S. 5,883,715) or Zang et al. (U.S. 5,838,439) is an improper one, absent any showing in the references themselves that they can or should be so combined in the twisted manner in which the Examiner suggests by removing words from their context in the cited nonrelevant art. Where was the suggestion of the desirability and modification suggested by the Examiner? Indeed, what the Office has done here is to 'pick and choose from any one reference only so much of it as will support a given position, to the exclusion of other parts necessary to the full appreciation of what such reference fairly suggests to one of ordinary skill in the art', *In re Umbrecht*, 160 USPQ 15, 19 (CCPA 1968)."

[from Applicant's previous Communication to the Examiner]

Attention is now directed to the fact that said comments in Applicant's Communication have simply been ignored by the Examiner. Attention is now also directed to the fact that the questions in Applicant's Communication have also been ignored by the Examiner. It is impossible to tell how the Examiner weighed Applicant's arguments; there is absolutely no way for the Applicant to present the Examiner's reasons for rejection to the Board of Appeals. The Applicant hereby requests to know the scientific basis, or any basis which allows the Examiner to dismiss this Argument.

45. Also ignored by the Examiner is the following by the Applicant citing "unexpected results, assumed insolubility, unrecognized problem, and crowded art",

**"54. The Applicant respectfully notes to the examiner that there exist additional reasons which militate in favor of unobviousness.**

**Unexpected Results:** Up to now, insofar as the Applicant is aware, the prior art cited by the examiner has virtually ignored the importance of determining the activity of a sample into which isotopic fuel is loaded. The device described within the above-entitled application is thus both superior and unsuggested. The means to improve loading is a *sine qua non* for the desired fusion reactions involving isotopic fuel in a material, and is therefore critical, and thus unobvious.

**Assumed Insolubility.** Up to now those skilled in the art have thought, or have found, that both obtaining fusion of this type, and the specific problem solved by this invention, were insoluble. The failures of much prior art, including but not limited to those cited by the examiner, indicates that a solution of these problems were, therefore, not obvious. This general lack of an obvious solution has occurred both generally in fusion, and specifically in the method to improve loading, as discussed in the above-entitled application.

**Unrecognized Problem:** Up to now, insofar as Applicant is aware, the art contained no indication of either how to succeed with "cold fusion" or the other uses of the present invention. The discovery of how to solve this problem, as well as the concomitant ability to improve loading, is submitted therefore to be an important one, and therefore worthy of patent protection.

**Crowded Art:** The present invention is in a crowded art. Attention is drawn, for example, to the plethora of references cited by the examiner in the brief period of time specified by the examiner. It is well recognized that in a crowded art, even a small step forward is worthy of patent protection. While the present invention is submitted to be far more than a small one, nevertheless this factor militates in Applicant's favor."

[from Applicant's previous Communication to the Examiner]

Attention is now directed to the fact that said arguments in Applicant's Communication have simply been ignored by the Examiner. The Examiner did not cite Applicant's arguments, nor did the Examiner discuss Applicant's arguments, nor did the Examiner rebut Applicant's arguments. Therefore it is impossible to tell how the Examiner weighed Applicant's arguments; there is absolutely no way for the Applicant to present the Examiner's reasons for rejection to the Board of Appeals. Therefore, given the above, the Applicant hereby again requests to know the substantive precise reason, scientific basis, or authority which allows the Examiner to dismiss this Argument by the Applicant without citation, analysis, or substantive

coherent response. Specifically, the Applicant hereby requests to know the scientific basis, or any basis which allows the Examiner to dismiss the Argument that,

**" the prior art cited by the examiner has virtually ignored the importance of determining the activity of a sample into which isotopic fuel is loaded. The device described within the above-entitled application is thus both superior and unsuggested"**

46. In summary, Applicant submits that the above-recited novel features in the independent claims, and hence in all claims, provide new and unexpected results. The subject matter sought to be patented by claims 1-20, a method to reveal information about the loading, *in situ*, and non-invasively using a vibrating electrode, composed of a metal such as palladium which has internal filling ("loading") with hydrogen, which is monitored for its natural frequency, was not obvious at the time the invention was made to a person having ordinary skill in the art for which the claimed subject matter pertains [35U.S.C. 103]. The Office has misread the claims of the present application under 35 U.S.C. §103. The Independent Claims are separately patentable with respect to 35 USC 103 and do not stand or fall together because they are materially distinct, are not unduly multiplied, and because all independent claims have separate limitations, as recited in the claims. Furthermore, they are separately patentable with respect to 35 USC 103 and do not stand or fall together because multiple claims are required because the invention described by the original specification of the above-entitled application is very complex. In addition, said Claims are separately patentable and do not stand or fall together because all of the claims are distinguished from the cited references and prior art with respect to 35 USC 103. Therefore, it should be considered unobvious, making the claims patentable under Section 103. None of the prior art, nor any combination of such, provides this or these new and unexpected results. The present application is a novel and nonobvious. Given the above, reconsideration with respect to Sec. 103 of Claims 1-20 is respectfully and reasonably requested by the Applicant.

### **RE: U.S.C.112 REJECTION, First Paragraph**

47. Claims 1-20 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the "enablement requirement". With all due respect to the Examiners, statement, 35 U.S.C. 112, first paragraph involves issues the operability requirement. Together with utility, a legal judgment of enablement can then be determined.

### ***De Jure* Proof That The Examiner Is Wrong**

48. Ignored by the Examiner is the following argument by the Applicant citing In re Oetiker,

**"The Examiner ignores In re Oetiker, 977 F.2d at 1445, 24 USPQ2d at 1444 which requires the Examiner to substantively respond with a *prima facie* case of unpatentability. However, after the submission of Swartz, M., "Possible Deuterium Production From Light water excess enthalpy experiments using Nickel Cathodes", *Journal of New Energy*, 3, 68-80 (1996) ... and the Declarations, the burden shifts back to the Office and can only be discharged by the Examiner "presenting evidence or reasons why persons skilled-in-the-art would not recognize in the disclosure a description of the invention defined by the claims" [Wertheim, 541 F.2d at 263, 191 USPQ at 97]. Applicant asks that this be done with specificity, substantivity, and with explicit reference, and in detail with full findings of fact. ...**

**"The Examiner should closely consider the *de jure* evidence including M Swartz, M., "Possible Deuterium Production From Light water excess enthalpy experiments using Nickel Cathodes", *Journal of New Energy*, 3, 68-80 (1996) which demonstrate(s) enablement at the time of the initial filing because validation only comes through peer-review."**

[from Applicant's previous Communication to the Examiner]

Attention is now directed to the fact that said comments in Applicant's Communication have simply been ignored by the Examiner. Therefore it is impossible to tell how the Examiner weighed Applicant's arguments; there is absolutely no way for the Applicant to present the Examiner's reasons for rejection to the Board of Appeals. The Applicant hereby again requests to know the substantive precise reason, scientific basis, or authority which allows the Examiner to dismiss this Argument by the Applicant without citation, analysis, or substantive coherent response when *Journal New Energy*, 1, 3, 68-80 (1996) which absolutely proves Applicant was correct on the filing date of the application [In re Hogan, 559 F.2d 595, 60S, 194 USPQ 527, 537 (CCPA 1977)].

### ***De Facto Proof That The Examiner Is Wrong***

49. The Examiner is the following argument by the Applicant citing the *de facto* evidence and testimony of the Declarants,

**"The Examiner should closely consider the *de facto* evidence and accept the testimony of the Declarants, skilled-in-the-art, who dispute the Examiner and attest to conformation with 35 U.S.C. §101. "**

[from Applicant's previous Communication to the Examiner]

As one example, attention is now directed to the previous Communication from the Applicant which said (but was ignored, as usual),

**"Straus (A44-A48) and Swartz (A18-A43) contained factual statements directly addressing how the specification adequately described the subject matter recited in the claims of S.N 09/750,480 and demonstrate that it operates as stated. They also herald that a person of ordinary skill in the art would have understood the inventor to have been in possession of the claimed invention at the time of filing. Simply put, the post-filing references establish that, as of the filing date, one of skill-in-the-art could use a method to monitor a vibrating electrode without undue experimentation."**

[from Applicant's previous Communication to the Examiner]

Operability was demonstrated and corroborated by declarations and testimony of individuals with "ordinary skill-in-the-art" which were, and are again, supplied, refuting the Examiner's (unsupported) position. Said Declarations included facts showing why the publications cited should not bar the grant of a patent to the inventor or the confirmation of the patentability of the claims of the patent. Applicant showed due diligence, and all Exhibits, and Declarations were satisfactorily explained. [24 FR 10332, Dec. 22, 1959; 34 FR 18857, Nov. 26, 1969; para.(a), 48 FR 2713, Jan. 20, 1983, effective Feb. 27, 1983; para. (a), 50 FR 9381, Mar. 7, 1985, effective May 8, 1985; 50 FR 11366, Mar. 21, 1985; 53 FR 23733, June 23, 1988, effective Sept. 12, 1988; para. (a)(1) revised and para. (a)(2) added, 60 FR 21043, May 1, 1995, effective May 31, 1995]. **The Straus declaration, and others, contained statements of fact directly addressing the issue of whether the specification adequately described the subject matter recited in the claims, whether it operated as stated, and whether a person of ordinary skill in the art would have understood the inventor to have been in possession of the claimed invention at the time of filing. As such said Declarations contain averments regarding evidence establishing the utility, validation, and operability of the present subject matter. Specifically, the Declarations demonstrate that with respect to vibration of the electrode -- the present invention works [For example, confer pages 6-10, 19-21 in the Swartz**



Declarations of September 8, 1992, and pages 2-5 in the Straus Declaration of November 27, 1992]. The Straus, Swartz, and other Declarations demonstrated teachings of the vibrational modes of the electrode as objective evidence regarding utility and enablement as explicitly taught in the original specification and claims. Thus, the Declarations, specifically provided as evidence supporting the Applicants position, have proven that an adequately written description requirement is met and they precisely refute the Decision's statements which are erroneous on these issues of operability and utility. Both enablement and validation have been shown by Declarations. Given that understanding this was sufficient for the Declarants, where is the Examiner's substantive response to Applicant's cited Declarations? Applicant specifically now cites the Swartz declaration, the Declaration of Straus (4/22/94), and the *Amicus Curiae* Briefs of Drs. Edmund Storms (2/21/01), Talbot Chubb (2/22/01), Eugene Mallove (3/24/00) and Hal Fox (2/21/01) and requests the Examiner's response with specificity.

Attention is now directed to the fact that the *Amicus Curiae* Brief of Talbot Chubb [Exhibit "'14", 2/22/01], *Amicus Curiae* Brief of Drs. Edmund Storms [Exhibit "'10", 2/21/01], Averment 4 in the *Amicus Curiae* Brief of Mr. Rotegard [Exhibit "'12", 2/21/01], Pages 4 through 8 in *Amicus Curiae* Brief of Thomas Valone [Exhibit "'11", 2/24/01], and pages 2-5 in the Straus Declaration [Exhibit "'8", November 27, 1992] have been ignored even though the affidants have probative value and even though the averments prove operability of the present invention.

**Where is the Examiner's substantive response?**

Attention is now directed to the fact that said comments in Applicant's Communication have simply been substantively ignored by the Examiner. Therefore it is impossible to tell how the Examiner weighed Applicant's arguments; there is absolutely no way for the Applicant to present the Examiner's reasons for rejection to the Board of Appeals. The Applicant hereby again requests to know the substantive precise reason, scientific basis, or authority which allows the Examiner to dismiss this Argument by the Applicant without citation, analysis, or substantive coherent response.

50. Also ignored by the Examiner is the following argument by the Applicant citing *In re Wands* citing with approval *Ex parte Forman*,

**"Furthermore, a method to reveal information about the loading, *in situ*, and non-invasively using a vibrating electrode, composed of a metal such as palladium which has internal filling ("loading") with hydrogen, which is monitored for its natural frequency, as was presented in the original specification and claims so that an artisan, or those skilled in the art, could practice it without undue experimentation [*In re Wands*, 858 F.2d 731, 737, 8 USPQ2d 1400, 1404 (Fed. Cir. 1988), citing with approval *Ex parte Forman*, 230 USPQ 546, 547 (Bd. Pat. App. & Int. 1986)]. Applicant has now demonstrated that his invention as claimed was, and is, adequately described to one skilled-in-the-art. Said Declarations are sufficient in their factual content with respect to the significant evidence, and prove that the Examiner is in clear error. By submitting said peer-reviewed publications, showing the Applicant is correct, and said Declarations containing relevant facts by probative witnesses, the Applicant has now undertaken the full burden coming forward with his evidence as required [*In re Oetiker*, 977 F.2d at 1445, 24 USPQ2d at 1444]."**

[from Applicant's previous Communication to the Examiner]

Attention is now directed to the fact that said comments in Applicant's Communication have simply been ignored by the Examiner. Therefore it is impossible to tell how the Examiner weighed Applicant's arguments; there is absolutely no way for the Applicant to present the Examiner's reasons for rejection to the Board of Appeals. The Applicant hereby again requests to know the substantive precise reason, scientific basis, or authority which allows the Examiner to dismiss this Argument by the Applicant without citation, analysis, or substantive coherent response.

The Declarations factually demonstrate proof of operability and utility - that is, enablement, and Applicant has the right to submit them.

**"AFFIDAVITS OVERCOMING REJECTIONS 1.131 (a)(1) When any claim of an application or a patent under reexamination is rejected .... on reference to a foreign patent or to a printed publication, the inventor of the subject matter of the rejected claim ... may submit an appropriate oath or declaration to overcome the patent or publication."**

51. The Declarations demonstrate that with respect to vibration of the electrode -- the present invention works (A18-A43, A44-A48) as explicitly taught in the original specification and claims. As such, said Declarations contain averments regarding evidence establishing the utility, validation, and operability of the Applicant's claimed subject matter. Said Declarations and almost four hundred references, constitute a *bona fide* case. They demonstrate validation, operability,

and utility of the Applicant's claimed subject matter as correctly taught in the original specification and claims regarding said monitored vibrating electrode. Straus (A44-A48) and Swartz (A18-A43) contained factual statements directly addressing how the specification adequately described the subject matter recited in the claims of S.N 09/750,480 and demonstrate that it operates as stated. They also herald that a person of ordinary skill in the art would have understood the inventor to have been in possession of the claimed invention at the time of filing. They substantially, extensively, and fully address matters and all issues that are criticized by the Office. The Declarations contain factual statements directly addressing how the specification adequately described the subject matter recited in the claims. They demonstrate that a person of ordinary skill in the art would have understood the inventor to have been in possession of the claimed invention at the time of filing, and that the invention operates as stated, and as explicitly taught in the original specification and claims. The Declarations prove that the Applicant taught in the original specification and claims how his apparatus works and claimed the invention.

Applicant asks the Examiner to please reconsider this matter, or explain his deviation from *In re Jolles*, and his ignoring the submitted Declarations and Exhibits.

52. The Examiner inaccurately states,

*"As to the ICCF-10 press releases cited by the Applicant, he has not established any identical relationship between the apparatus described therein and his claimed invention."*

So many errors in a single statement by the Office. First, despite the statement by the Office, the Applicant did establish a relationship to written documents. Second, the exhibits, in fact, were not "press releases". Third, said "releases" were statements made by multiple individuals, unrelated to the Applicant, who observed the applicant's inventions in this field at the Massachusetts Institute of Technology [Cambridge, MA]. Attention is directed to the fact that although this demonstration lasted a week. The Office refused to send a single individual, despite being requested to send someone by the Applicant who discussed this with an Attorney of the Office.

Fourth, therefore, the statement by the Examiner is self-serving and wrong about what is "obtainable".

Fifth, and most importantly, despite the false statement above by the Office, the relevance is that the observers proved that the environment, in which the present invention does operate, exists.

Sixth, this individuals prove that those skilled-in-the-art disagree with the erroneous opinion of the Office.

53. The Examiner states,

*"On page 7,1 paragraph, the applicant states that a mechanical system enables the cathode to vibrate between displacements. There is neither a written description nor enabling disclosure of this mechanical system. (Applicant's arguments in his traverse have been fully considered but found unconvincing."*

**THE TRUTH - The Examiner Has Been Substantively Unresponsive, This was Discussed Previously**

The Examiner has been unresponsive to Applicant's arguments pointing to Figures 1-5 and the text of the original specification, even though they were fully discussed in significant detail in the previous Communication from the Applicant to the Examiner. For example, in said Communication, the Applicant took the time to respond to the Examiner and wrote the following comments.

**"In differential calculus, there are known to be "normal modes" to those skilled-in-the-art. The Examiner is referred to Figure 1 which demonstrates the higher frequencies. The Examiner is also referred to "Advanced Calculus for Applications, Second Edition" by Francis Hildebrand (1976). On pages 72 through 76, and also page 88, in the section entitled "Applications to Linear Differential Equations with Constant Coefficients", there is discussed the equations that lead to these normal modes. In addition, the Examiner is referred to "Theoretical Mechanics: An Introduction To Mathematical Physics" (1929) by Joseph Ames and Francis Murnaghan. The examiner is specifically referred to pages 24 pages 124 to 139 for background on the well-known harmonic vibrations (especially page 129). In addition the Examiner is referred to "Analytical Mechanics" (1962) by Grant Fowles. The Examiner is specifically referred to pages 80 through 84 for that harmonic analytic physics, including the elementary issues resulting from restoring force, on pages 43 through 45. The examiner is referred to "Calculus and Analytical Geometry" (1951, and 1960) by George Thomas Jr. The examiner is particularly referred to pages 895 through 900 for more background on natural frequencies which apparently were not a problem for the previous Examiner, or the Declarants..."**

Attention is now directed to the fact that said comments in Applicant's Communication have simply been ignored by the Examiner. Therefore it is impossible to tell how the Examiner weighed Applicant's arguments; there is absolutely no way for the Applicant to present the Examiner's reasons for rejection to the Board of Appeals. Therefore, given the above, the Applicant hereby again requests to know the substantive precise reason, scientific basis, or authority which

allows the Examiner to dismiss this Argument by the Applicant without citation, analysis, or substantive coherent response. Nonetheless, to further respond and hopefully please the examiner, the Applicant does now submit an amendment, which if the Examiner will enter, will satisfy the Examiner's comment.

54. The Examiner states,

*"There is neither an adequate description not enabling disclosure of the parameters of a specific operative embodiment of the invention, including ... mechanical means to support the cathode at a pivot point, etc. ... (Applicants arguments in his traverse have been fully considered but found unconvincing. Applicant has not incorporated by reference the applications that allegedly contain the above subject matter)."*

#### **THE TRUTH -**

The Examiner has been unresponsive to Applicant's arguments even though they were fully discussed in significant detail in the previous Communication from the Applicant to the Examiner. For example, in said Communication, the Applicant took the time to respond to the Examiner and wrote the following comments and questions.

Attention is now directed to the fact that the "mechanical means to support the cathode at a pivot point" is shown, and in Figure 1 it is shown as a suspension, in the original specification. It is shown in Figure 2, as well. Also conveniently ignored by the Examiner are the large external mass (labeled as number 14) and bolts (labeled as number 15) which stabilize that suspension.

Does it matter that the Examiner is leads away from the original specification and claims. Apparently not. Therefore, given the above, the Applicant hereby again requests to know the substantive precise reason, scientific basis, or authority which allows the Examiner to dismiss this Argument by the Applicant without citation, analysis, or substantive coherent response.

Nonetheless, to further respond and hopefully please the examiner, the Applicant does now submit an amendment, which if the Examiner will enter, will satisfy the Examiner's comment.

55. The Examiner states,

*"On page 10, line 5 of the specification, the applicant provides an unnumbered equation of Motion. The disclosure is insufficient as to how and in what manner the values of the constants,  $k$  and  $b$ , are evaluated, and what approximations, if any, are used in their evaluation. (Applicant's reply is unresponsive. The Examiner was not referring to how to theoretically solve the equation, but how to determine the constants in an actual operative embodiment that the applicant has not proven to exist)."*

**THE TRUTH - The Examiner Has Been Substantively Unresponsive, This was Discussed Previously**

The Examiner is wrong for several reasons.

First, the equation was numbered after amendment as Equation 1.

Second, the Examiner has been unresponsive to Applicant's arguments even though they were fully discussed in significant detail in the previous Communication from the Applicant to the Examiner.

For example, in said Communication, the Applicant took the time to respond to the Examiner and wrote the following comments.

**73... the Examiner is incorrect because the specification states, "The equation of motion is ... where  $k$  is the first order spring constant characterizing the cathode, and  $b$  is the parameter relating frictional force exerted by the solution upon the cathode to the velocity of said cathode. By Stokes' law, the parameter " $b$ " is closely related both to the viscosity of the solution in the reactor and the size of the cathode perpendicular to the velocity of said cathode (" $A$ "). The solution to the equation of motion is that of a damped sinusoid, with a natural angular frequency of a damped oscillator."**

**In differential calculus and elementary mechanics, these constants are well known... The Examiner is also referred to "Advanced Calculus for Applications, Second Edition" by Francis Hildebrand (1976). On pages 72 through 76, and also page 88, in the section entitled "Applications to Linear Differential Equations with Constant Coefficients", there is discussed these equations. In addition, the Examiner is referred to "Theoretical Mechanics: An Introduction To Mathematical Physics" (1929) by Joseph Ames and Francis Murnaghan. The examiner is specifically referred to pages 24 pages 124 to 139 for background on these equations. In addition the Examiner is referred to "Analytical Mechanics" (1962) by Grant Fowles for the physics resulting from restoring force. The examiner is referred to "Calculus and Analytical Geometry" (1951, and 1960) by George Thomas Jr., including pages 895 through 900 for more background on a matter that was not a problem for the previous Examiner or the Declarants."**

**[from Applicant's previous Communication to the Examiner]**

Attention is now directed to the fact that said comments in Applicant's Communication have simply been ignored by the Examiner. The Examiner discuss Applicant's arguments, nor did the Examiner rebut Applicant's arguments. Therefore

it is impossible to tell how the Examiner weighed Applicant's arguments; there is absolutely no way for the Applicant to present the Examiner's reasons for rejection to the Board of Appeals. The Applicant requests to know the substantive precise reason, scientific basis, or authority which allows the Examiner to dismiss this Argument by the Applicant without citation, analysis, or substantive coherent response.

Furthermore, there is no basis for the Examiner's uncalled for, and mean, comments. There is no need to solve for every constant in every equation in a teaching, especially because these were presented to demonstrate the physics and mathematics to make the invention and beyond, and the Examiner knows that. Instead, the Examiner again leads away from the invention, even though the original specification has been demonstrated by the affiants to teach operability.

Nonetheless, to further respond and hopefully please the examiner, the Applicant does now submit an amendment, which if the Examiner will enter, will satisfy the Examiner's comment.

56. The Examiner states,

*"There is neither an adequate description not enabling disclosure of the parameters of a specific operative embodiment of the invention, including ... pressure and temperature conditions inside the reaction cell and how these conditions are maintained within a given range, ... (Applicants arguments in his traverse have been fully considered but found unconvincing. Applicant has not incorporated by reference the applications that allegedly contain the above subject matter)."*

**THE TRUTH - The Examiner Has Been Substantively Unresponsive, This was Discussed Previously**

The Examiner is wrong for several reasons. First, the Examiner has been unresponsive to Applicant's arguments even though they were fully discussed in significant detail in the previous Communication from the Applicant to the Examiner. For example, in said Communication, the Applicant took the time to respond to the Examiner and wrote the following comment.

**"... the Applicant cited his other patent applications, consistent with In re Jolles. Reference to other patents is allowable. Applicant asks the Examiner to explain his deviation from In re Jolles.**

**"An original specification can also incorporate by reference subject matter disclosed in another patent application which is pending before the Patent Office and hence unavailable to the public." [In re Jolles; United States Court of Customs and Patent Appeals, 1980, 628 F.2d, 1322, 206 USPQ 885]**

Attention is now directed to the fact that said comments in Applicant's Communication have simply been ignored by the Examiner. Therefore it is impossible to tell how the Examiner weighed Applicant's arguments; there is absolutely no way for the Applicant to present the Examiner's reasons for rejection to the Board of Appeals. Therefore, the Applicant hereby again requests to know the substantive precise reason, scientific basis, or authority which allows the Examiner to dismiss this Argument by the Applicant without citation, analysis, or substantive coherent response. Specifically, the Applicant hereby requests to know the scientific basis, or any basis which allows the Examiner to dismiss the Argument that,

**"An original specification can also incorporate by reference subject matter disclosed in another patent application which is pending before the Patent Office and hence unavailable to the public. "[In re Jolles; United States Court of Customs and Patent Appeals, 1980, 628 F.2d, 1322, 206 USPQ 885]"**.

Second, the Examiner has not explained why these purported conditions must be maintained at the Examiner explicitly demands or claims. The Applicant presented the invention and it stands as written.

Third, despite the Examiner's comments, the present invention measures loading, and it does not matter what "*conditions exist inside the cell (e.g., pressure and temperature conditions)*" or "*how and in what manner these conditions are maintained, e.g., how the temperature is maintained at a given range.*"

Fourth, the Examiner again is leading away from the present invention for reasons unclear.

57. The Examiner states,

*"There is neither an adequate description not enabling disclosure of the parameters of a specific operative embodiment of the invention, including ... dimensional ratio of electrodes to their spacing (i.e., sizes of anode and cathode relative to the space between them), .. (Applicants arguments in his traverse have been fully considered but found unconvincing. Applicant has not incorporated by reference the applications that allegedly contain the above subject matter)."*

**THE TRUTH - The Examiner Has Been Substantively Unresponsive, This was Discussed Previously**

This is unfair for several reasons. First, the Examiner has been unresponsive to Applicant's arguments even though they were fully discussed in significant detail in the previous Communication from the Applicant to the Examiner. For example, in said Communication, the Applicant took the time to respond to the Examiner and



wrote the following comments and questions, because the very question does not make sense. The Applicant said,

**"What is the *"dimensional ratio of electrodes"*? What are the units of an "electrodes"? Could the Examiner mean the "size" of the electrode? Or does he mean weight? or does he mean Reynolds number? The Examiner is harassing the Applicant because the Examiner's comment has nothing to do with the present invention, a method of monitoring vibrational normal modes (i.e.. frequencies) of an electrode.**

[from Applicant's previous Communication to the Examiner]

Second, attention is now directed to the fact that said comments in Applicant's Communication have simply been ignored by the Examiner. Attention is now also directed to the fact that the questions in Applicant's Communication have also been ignored by the Examiner. The Examiner did not answer Applicant's scientific argument. Therefore it is impossible to tell how the Examiner weighed Applicant's scientific argument; there is absolutely no way for the Applicant to present the Examiner's reasons for rejection to the Board of Appeals. Therefore, given the above, the Applicant hereby requests to know the scientific basis, or any basis which allows the Examiner to dismiss the Argument that,

**"What is the *"dimensional ratio of electrodes"*? What are the units of an "electrodes"? Could the Examiner mean the "size" of the electrode? Or does he mean weight? or does he mean Reynolds number?"**

Importantly, nonetheless, to further respond and hopefully please the examiner, the Applicant does now submit an amendment, which if the Examiner will enter, will satisfy the Examiner's comment.

58. The Examiner states,

*"There is neither an adequate description not enabling disclosure of the parameters of a specific operative embodiment of the invention, including ... surface area-to-volume requirement for the reactor... (Applicants arguments in his traverse have been fully considered but found unconvincing. Applicant has not incorporated by reference the applications that allegedly contain the above subject matter)."*

**THE TRUTH - The Examiner Has Been Substantively Unresponsive, This was Discussed Previously**

The Examiner has been unresponsive to Applicant's arguments even though they were fully discussed in significant detail in the previous Communication from the Applicant to the Examiner. For example, in said Communication, the Applicant took the time to respond to the Examiner and wrote the following comments and questions.

**"What is the *" surface area-to-volume requirement for the reactor"* in this context and exactly what does it have to do with a method of monitoring vibrational normal modes (ie. frequencies) of an electrode? Nothing.**

**The Examiner's comment again has nothing to do with the present invention, a method of monitoring vibrational normal modes (ie. frequencies) of an electrode. The Examiner is harassing the Applicant for reasons unclear.**

[from Applicant's previous Communication to the Examiner]

Attention is directed to the fact that said comments in Applicant's Communication have simply been ignored by the Examiner. Attention is now also directed to the fact that the questions in Applicant's Communication have also been ignored by the Examiner. The Examiner did not cite Applicant's scientific argument. Therefore it is impossible to tell how the Examiner weighed Applicant's scientific argument; there is absolutely no way for the Applicant to present the Examiner's reasons for rejection to the Board of Appeals. Therefore, given the above, the Applicant hereby requests to know the scientific basis, or any basis which allows the Examiner to dismiss the Argument that,

**"What is the " surface area-to-volume requirement for the reactor" in this context and exactly what does it have to do with a method of monitoring vibrational normal modes (ie. frequencies) of an electrode?"**

Nonetheless, to further respond and hopefully please the examiner, the Applicant does now submit an amendment, which if the Examiner will enter, will satisfy the Examiner's request.

59. The Examiner states,

*"The disclosure is also insufficient as to ratio of the different masses involved, i.e., ratio of the thickness of "springy material" 13 to the thickness of cathode 1, ratio of mass 11 to the mass of cathode 1, ratio of three masses to each other, etc. (Applicant's reply is unresponsive. The above remark refers to lack of disclosure of parameters for an operating embodiment, which embodiment has not been proven to exist by the applicant).*

*"There is neither an adequate description not enabling disclosure of the parameters of a specific operative embodiment of the invention, including ... thickness ratio of the "springy material" 3 to cathode 1 .(Applicants arguments in his traverse have been fully considered but found unconvincing. Applicant has not incorporated by reference the applications that allegedly contain the above subject matter)."*

*"There is neither an adequate description not enabling disclosure of the parameters of a specific operative embodiment of the invention, including ... ratio of masses 1, 11 and 13 to each other ... (Applicants arguments in his traverse have been fully considered but found unconvincing. Applicant has not incorporated by reference the applications that allegedly contain the above subject matter)."*

**THE TRUTH - The Examiner Has Been Substantively Unresponsive, This was Discussed Previously**

This is unfair and untrue for several reasons. First, the English does not even make sense. Second, the Examiner has been unresponsive to Applicant's arguments

even though they were fully discussed in significant detail in the previous Communication from the Applicant to the Examiner. For example, in said Communication, the Applicant took the time to respond to the Examiner and referred the Examiner to "Advanced Calculus for Applications, Second Edition" by Francis Hildebrand (1976), "Theoretical Mechanics: An Introduction To Mathematical Physics" (1929), "Analytical Mechanics" (1962), and "Calculus and Analytical Geometry" (1951, and 1960). Attention is now directed to the fact that said comments in Applicant's Communication have simply been ignored by the Examiner. Attention is now also directed to the fact that the questions in Applicant's Communication have also been ignored by the Examiner. The Commissioner, and Court, should note that the Examiner did not cite Applicant's arguments, nor did the Examiner discuss Applicant's arguments, nor did the Examiner rebut Applicant's arguments. Therefore it is impossible to tell how the Examiner weighed Applicant's arguments; there is absolutely no way for the Applicant to present the Examiner's reasons for rejection to the Board of Appeals.

As a corollary, the Applicant hereby again requests to know the substantive precise reason, scientific basis, or authority which allows the Examiner to dismiss this Argument by the Applicant without citation, analysis, or substantive coherent response. Specifically, the Applicant hereby requests to know the scientific basis, or any basis which allows the Examiner to dismiss the Argument that,

**"What is the *"thickness ratio of the "springy material" 13 to cathode 1*" ? and what does it have to do with a vibrational normal modes as discussed in the present application? Nothing. The Examiner is harassing the Applicant, or is again insisting on inserting his own inventions or ideas onto the Applicant for reasons unclear. The Examiner is referred to "Advanced Calculus for Applications, Second Edition" by Francis Hildebrand (1976), "Theoretical Mechanics: An Introduction To Mathematical Physics" (1929), "Analytical Mechanics" (1962), and "Calculus and Analytical Geometry" (1951, and 1960)."**

NOTA BENE: Nonetheless, because this is important, and to further respond and hopefully please the examiner, the Applicant does now submit an amendment, which if the Examiner will enter, will satisfy the Examiner's request. All ratios are given, or are derivable, from the preferred embodiment.

60. The Examiner states,

*"There is neither an adequate description not enabling disclosure of the parameters of a specific operative embodiment of the invention, including ... length of time the process has to carried out ... (Applicants arguments in his traverse have been fully considered but found unconvincing. Applicant has not incorporated by reference the applications that allegedly contain the above subject matter)."*

This is unfair for many reasons. First, the Examiner has been unresponsive to Applicant's arguments even though they were fully discussed in significant detail in the previous Communication from the Applicant to the Examiner. For example, in said Communication, the Applicant took the time to respond to the Examiner and wrote the following comment.

**"THE TRUTH - Nonscientific Requirement By Examiner**

**If the Examiner wants to know the "... length of time the process has to carried out", he reveals that he does know how a measurement device, or even a thermometer works after equilibrium. Once loading is achieved, the measurement can be made. What does the "length of time the process has to (sic) carried out" have to do with a vibrational normal mode measurement of loading? Nothing. The Examiner is patently harassing the Applicant."**

[from Applicant's previous Communication to the Examiner]

Attention is now directed to the fact that said comment in Applicant's Communication have simply been ignored by the Examiner. Attention is now also directed to the fact that the question in Applicant's Communication have also been ignored by the Examiner. Therefore it is impossible to tell how the Examiner weighed Applicant's arguments; there is absolutely no way for the Applicant to present the Examiner's reasons for rejection to the Board of Appeals. Applicant hereby again requests to know the substantive precise reason, scientific basis, or authority which allows the Examiner to dismiss this Argument by the Applicant without citation, analysis, or substantive coherent response. Specifically, the Applicant hereby requests to know the scientific basis, or any basis which allows the Examiner to dismiss the Argument that, "What does the "length of time the process has to (sic) carried out" have to do with a vibrational normal mode measurement of loading? Nothing. The Examiner is patently harassing the Applicant by use of a word processor.

Nonetheless, to further respond and hopefully please the examiner, the Applicant does now submit an amendment, which if the Examiner will enter, will satisfy the Examiner's request.

61. The Examiner states,

*"The applicant states on page 4 of the specification that the process of loading is complicated, and the changes of deuterium loading into palladium is difficult because "the rate of desired reactions is very low." However, the applicant presents neither working examples nor description of an operating embodiment nor specific direction or guidance as to how to achieve the claimed results. Thus, although the applicant acknowledges that the process is complicated and difficult to monitor, he treats the process as though it is well known and readily reproducible. This paucity of information necessary for the exercise of the claimed invention is discussed in detail below."*

This is harassment for several reasons. First, this is a new argument after final.

Second, it is irrelevant that the rate of desired reactions is low. **THIS INVENTION MEASURES THE LOADING.**

Third, the Examiner's argument is a straw argument which is both self-serving and far from the standards of science. If an invention measured the speed of a car or other object, would it necessarily matter what the velocity of the car was? In many types of speedometers it would not.

Fourth, this was discussed, as the Examiner has ignored,

**"... it is wrong to purport "loading" is the same as "nuclear" anything. However, it is especially important to note that loading is a *sine qua non* for the desired reactions, and that there has been insufficient mention of loading achieved in many of the so-called "negative results" studies upon which the Examiner relies. The proper loading required must usually be in excess of the values mentioned in Examiner's art [and not even mentioned in the majority of the papers which were cited by the Examiner]. Many "negative" results may be, in part, due to inadequate loading, and/or the failure to monitor said loading of isotopic fuel as shown in Figure 1 from the Applicant's peer-reviewed published paper, "Patterns of Failure..." (Swartz 98B)."**

[from Applicant's previous Communication to the Examiner]

Attention is now directed to the fact that said comment in Applicant's Communication have simply been ignored by the Examiner. Attention is now also directed to the fact that the question in Applicant's Communication have also been ignored by the Examiner. Therefore it is impossible to tell how the Examiner weighed Applicant's arguments; there is absolutely no way for the Applicant to present the Examiner's reasons for rejection to the Board of Appeals. Applicant hereby again requests to know the substantive precise reason, scientific basis, or authority which allows the Examiner to dismiss this Argument by the Applicant without citation, analysis, or substantive coherent response.

62. The Examiner states,

*"As presently set forth, the electrical power system (box 50 in Fig. 1), the optical irradiator subsystem (box 30 in Fig. 1), the optical detection subsystem (box 31 in Fig. 1), the central control unit (box 23 in Fig. 1) and the power source (box 42 in Fig. 1) are essentially "black boxes" with no description of the internals thereof. Applicant has not shown where the specifics of the internals of the "black boxes" are described in the cited publications)."*

**The Truth - The Examiner Has Been Substantively Unresponsive, This Was Discussed Previously**

The Examiner has been unresponsive to Applicant's arguments even though they were fully discussed in significant detail in the previous Communication from the Applicant to the Examiner. For example, in said Communication, the Applicant took the time to respond to the Examiner and wrote the following comment.

**"The original specification was clear and sufficient for the affiants, and the previous Examiner Wasil, and the court. As the specification states,**

**"The optical beam originates from an optical laser contained in an optical irradiator subsystem (labeled as number 30) and is detected electrooptically by an optical detection subsystem (labeled as number 31). The photodetector and associated equipment are not shown in this figure. The repetitive cutoff of the optical beam occurs due to the physical displacement of the cathode during an oscillation as described herein. These oscillations may occur during the loading of said cathode, or may occur periodically. The mass of the cathode (increasing by adsorption of deuterons) increases antecedent to the desired reactions, and results in a decreasing of the frequency of said oscillation (vide infra). The mass is derived from the decrease in oscillation frequency."**

[from Applicant's previous Communication to the Examiner]

In fact, as the present Application states, and was discussed in the previous Communication to the Examiner which was ignored,

**"Figure 1 is a simplified three-dimensional diagram of the reaction monitoring system, showing an electrochemically loading system ("reaction system") containing the vibrating cathode, and accompanied by the optical monitoring system and the orthogonal magnetic pumping coil.**

**Within the reaction chamber (labeled as number 16) is the platinum anode (labeled a number 60), and the palladium cathode (labeled as number 1). These electrodes are driven by an external electrical power system (labeled as number 50).**

**The cathode (labeled as number 1) has a variety of positions of which three are shown. These displacements are greatly magnified in Figure 1. For simplicity the reactor (16) is filled to the top. ... When this novel cathode does move, it interferes with an optical beam (labeled as number 12 in Figure 1)."**

**Thus, the original specification teaches (page 4, line 32 through page 5, line 3), the best mode contemplated by the inventor of carrying out his invention using an optical subsystem (referring to the figures).**

**"The optical beam originates from an optical laser contained in an optical irradiator subsystem (labeled as number 30) and is detected**

electrooptically by a optical detection subsystem (labeled as number 31)."

The original specification teaches (page 5, lines 5-8) and elaborates for those skilled in the art to make and use the subject matter defined by each of the rejected claims.

"The repetitive cut-off of the optical beam occurs due to the physical displacement of the cathode during an oscillation as described herein. These oscillations may occur during the loading of said cathode, or may occur periodically."

The original specification (page 5, lines 8-12), continues with the teaching of how the vibrational frequency relates to the loading.

"The mass of the fusion cathode (increasing by adsorption of deuterons) increases antecedent to nuclear fusion, and results in a decreasing of the frequency of said oscillation (vide infra). The mass is derived from the decrease in oscillation frequency.

The original specification teaches (page 5, lines 13-18), the best mode contemplated by the inventor of carrying out his invention using detected vibration of the loaded electrode (referring to the figures).

"The frequency information is collected, and all the subunits are driven, by a central control unit (labeled as number 23). Said control unit also powers the means to drive said vibrational frequency, consisting of a power source (labeled as number 42) and a coil (labeled as number 41, of which only a few turns are shown in Figure 1) .... "

"Because the natural frequency can be counted with a laser beam and photodetector (coupled to a trigger and frequency counter), an accurate in situ determination of frequency is possible."

The original specification continues (page 5, lines 23-25) with the teaching of the determination.

"The cathode can be modeled as a pendulum, and any analysis is simplified by considering that most of the mass resides in the large terminal portion of said cathode (labeled as number 1). The analysis can be derived from Newton's Law, from the viscous damping force, and the approximation that the cathode behaves similar to a basic mass/spring-type system."

[from Applicant's previous Communication to the Examiner]

Attention is now directed to the fact that said comments in Applicant's Communication have simply been ignored by the Examiner. The Commissioner, and Court, should note that the Examiner did not cite Applicant's arguments, nor did the Examiner discuss Applicant's arguments, nor did the Examiner rebut Applicant's arguments. Therefore it is impossible to tell how the Examiner weighed Applicant's arguments; there is absolutely no way for the Applicant to present the Examiner's reasons for rejection to the Board of Appeals. Because the Examiner was requested to answer and respond with specificity, the Examiner has apparently ignored the Office rules, and expectations of reasonable people, and has defied the laws and regulations arising from the US Constitution which led to the creation of the Patent

Office. The Applicant hereby requests to know the substantive precise reason, scientific basis, or authority which allows the Examiner to dismiss this Argument by the Applicant without citation, analysis, or substantive coherent response.

Nonetheless, to further respond and hopefully please the examiner, the Applicant does now submit an amendment, which if the Examiner will enter, will satisfy the Examiner's request.

63. The Examiner states,

*"There is neither an adequate description not enabling disclosure of the parameters of a specific operative embodiment of the invention, including ...required magnetic strength of coil 41, distance between the coil and the coil ... (Applicants arguments in his traverse have been fully considered but found unconvincing. Applicant has not incorporated by reference the applications that allegedly contain the above subject matter)."*

**THE TRUTH - The Examiner Has Been Substantively Unresponsive, This was Discussed Previously**

The Examiner has been unresponsive to Applicant's arguments even though they were fully discussed in significant detail in the previous Communication from the Applicant to the Examiner. For example, in said Communication, the Applicant took the time to respond to the Examiner and wrote the following comment which are well known to those skill in the art,

**"This is well known to those skilled-in-the-art as the Declarants indicate. The Examiner is referred to the literature such as "The Physical Principles of Magnetism", Allan H. Morrish, John Wiley and Sons, New York, 1966, and the Amateur Radio Handbook, which will explain this further for the Examiner.**

[from Applicant's previous Communication to the Examiner]

Attention is now directed to the fact that said comments in Applicant's Communication have simply been ignored by the Examiner. Therefore it is impossible to tell how the Examiner weighed Applicant's arguments; there is absolutely no way for the Applicant to present the Examiner's reasons for rejection to the Board of Appeals.

Nonetheless, to further respond and hopefully please the examiner, the Applicant does now submit an amendment, which if the Examiner will enter, will satisfy the Examiner's request.



64. Ignored in the Examiner's Communication are the following standards of review which have been cited by the Applicant. The Applicant explicitly requested answers with specificity regarding each of the Office's systematic deviations. There has been no substantive response. Ignored by the Examiner is the following argument by the Applicant citing *In re Hogan*,

**"The Examiner ignores *In re Hogan* [559 F.2d 595, 60S, 194 USPQ 527, 537 (CCPA 1977)] which discusses that enablement must be judged on the original specification and claims, but in the Office Communication it was not.**

[from Applicant's previous Communication to the Examiner]

Attention is now directed to the fact that said comments in Applicant's Communication have simply been ignored by the Examiner. Therefore it is impossible to tell how the Examiner weighed Applicant's arguments; there is absolutely no way for the Applicant to present the Examiner's reasons for rejection to the Board of Appeals. The Applicant hereby again requests to know the substantive precise reason, scientific basis, or authority which allows the Examiner to dismiss this Argument by the Applicant without citation, analysis, or substantive coherent response.

65. Also ignored by the Examiner is the following argument by the Applicant citing following argument by the Applicant citing *In re Fouche*,

**"The Examiner ignores *In re Fouche* [439 F.2d 1237, 1243, 169 USPQ 429, 434, (CCPA 1971) and *In re Zletz* [893 F.2d 319, 13 USPQ2d 1320 (Fed. Cir. 1989)] which state that an invention (in structure, operation and composition) is defined by the claims and the original specification.**

[from Applicant's previous Communication to the Examiner]

Attention is now directed to the fact that said comments in Applicant's Communication have simply been ignored by the Examiner. Therefore it is impossible to tell how the Examiner weighed Applicant's arguments; there is absolutely no way for the Applicant to present the Examiner's reasons for rejection to the Board of Appeals. The Applicant hereby again requests to know the substantive precise reason, scientific basis, or authority which allows the Examiner to dismiss this Argument by the Applicant without citation, analysis, or substantive coherent response.

66. Also ignored by the Examiner is the following argument by the Applicant citing *In re Morris*,

**"The Examiner ignores *In re Morris* which requires that the Examiner must respond to what Applicant meant, but he did not.**

[from Applicant's previous Communication to the Examiner]

Attention is now directed to the fact that said comments in Applicant's Communication have simply been ignored by the Examiner. Therefore it is impossible to tell how the Examiner weighed Applicant's arguments; there is absolutely no way for the Applicant to present the Examiner's reasons for rejection to the Board of Appeals. The Applicant hereby again requests to know the substantive precise reason, scientific basis, or authority which allows the Examiner to dismiss this Argument by the Applicant without citation, analysis, or substantive coherent response.

67. Also ignored by the Examiner is the following argument by the Applicant citing *In re Prater*,

**"The Examiner ignores *In re Prater*, 415 F.2d 1393, 162 USPQ 541 (CCPA 1969)] which requires the Examiner to refer to the claimed invention as the focus of its Office communication, but it did not when drifting toward criticism of "FP".**

[from Applicant's previous Communication to the Examiner]

Attention is now directed to the fact that said comments in Applicant's Communication have simply been ignored by the Examiner. Therefore it is impossible to tell how the Examiner weighed Applicant's arguments; there is absolutely no way for the Applicant to present the Examiner's reasons for rejection to the Board of Appeals. The Applicant hereby again requests to know the substantive precise reason, scientific basis, or authority which allows the Examiner to dismiss this Argument by the Applicant without citation, analysis, or substantive coherent response.

68. Also ignored by the Examiner is the following argument by the Applicant citing Rule 132,

**"The Examiner ignores Rule 132 which requires Applicant's solid, substantial, and timely, evidence submitted against the Examiner's rejections be considered because "(p)atentability is determined on the totality of the record, by a preponderance of the evidence with due consideration to persuasiveness of argument." [Id. at 1445, 24 USPQ2d at 1444]. Applicant has published his inventions, proving that this invention was correctly taught in the original specification and claims, on the filing date of the application.**

[from Applicant's previous Communication to the Examiner]

Attention is now directed to the fact that said comments in Applicant's Communication have simply been ignored by the Examiner. Therefore it is impossible to tell how the Examiner weighed Applicant's arguments; there is absolutely no way for the Applicant to present the Examiner's reasons for rejection to the Board of Appeals. The Applicant hereby again requests to know the substantive precise reason, scientific basis, or authority which allows the Examiner to dismiss this Argument by the Applicant without citation, analysis, or substantive coherent response.

69. Also ignored by the Examiner is the following argument by the Applicant citing *In re Gazave*,

**"The Examiner ignores *In re Gazave*, 54 CCPA 1524, 379 F.2d 973, 154 USPQ 92 (1967)] and *In re Chilowsky* [43 CCPA 775, 229 F.2d 457, 108 USPQ 321 (1956)] which require consideration of the material which Applicant supplied and cited - and now has supplied again.**

[from Applicant's previous Communication to the Examiner]

Attention is now directed to the fact that said comments in Applicant's Communication have simply been ignored by the Examiner. Therefore it is impossible to tell how the Examiner weighed Applicant's arguments; there is absolutely no way for the Applicant to present the Examiner's reasons for rejection to the Board of Appeals. The Applicant hereby again requests to know the substantive precise reason, scientific basis, or authority which allows the Examiner to dismiss this Argument by the Applicant without citation, analysis, or substantive coherent response.

70. Also ignored by the Examiner is the following argument by the Applicant citing *In re Brana* and *In re Eltgroth*,

**"The Examiner ignores *In re Brana* and *In re Eltgroth*, 419 F.2d 918, 164 USPQ 221 (CCPA 1970) which demand that the Examiner must establish a reason to doubt an invention's asserted utility, and the method to reveal information about the loading, *in situ*, and non-invasively using a vibrating electrode, composed of a metal such as palladium which has internal filling ("loading") with hydrogen, which is monitored for its natural frequency, as was presented in the original specification and claims has great utility. It is not 'incredible' or 'unbelievable' like the Examiner appears to purport. This invention is quite believable.**

[from Applicant's previous Communication to the Examiner]

Attention is now directed to the fact that said comments in Applicant's Communication have simply been ignored by the Examiner. Therefore it is impossible to tell how the Examiner weighed Applicant's arguments; there is absolutely no way for the Applicant to present the Examiner's reasons for rejection to the Board of Appeals. The Applicant hereby again requests to know the substantive precise reason, scientific basis, or authority which allows the Examiner to dismiss this Argument by the Applicant without citation, analysis, or substantive coherent response.

71. Also ignored by the Examiner is the following argument by the Applicant submitted evidence including Declarations and published peer-reviewed scientific articles ,

**"108. In summary, Examiner must consider the submitted evidence including:**

**#1) Declarations from scientists of ordinary skill-in-the-art, who considered the specification and stated that the written description was sufficient.**

**#2) The published peer-reviewed scientific articles [including m Swartz, M., "Possible Deuterium Production From Light water excess enthalpy experiments using Nickel Cathodes", *Journal of New Energy*, 3, 68-80 (1996) and Swartz, 1998, Improved Electrolytic Reactor Performance Using  $\pi$ -Notch System Operation and Gold Anodes, Transactions of the American Nuclear Association, Nashville, Tenn 1998 Meeting, (ISSN:0003-018X publisher LaGrange, Ill) 78, 84-85 and Swartz(92, 94A, 97A, 97C)].**

[from Applicant's previous Communication to the Examiner]

Attention is now directed to the fact that said comments in Applicant's Communication have simply been ignored by the Examiner. Therefore it is impossible to tell how the Examiner weighed Applicant's arguments; there is absolutely no way for the Applicant to present the Examiner's reasons for rejection

to the Board of Appeals. The Applicant hereby again requests to know the substantive precise reason, scientific basis, or authority which allows the Examiner to dismiss this Argument by the Applicant without citation, analysis, or substantive coherent response.

72. Also ignored by the Examiner is the following argument by the Applicant citing *In re Wands*,

**"The Examiner ignores *In re Wands*, 858 F.2d 731, 737, 8 USPQ2d 1400, 1404 (Fed. Cir. 1988) which indicates that #1 or #2 are sufficient to demonstrate that the specification provides an adequately written description of the subject matter, including how to operate the invention, and claimed the invention so that an artisan, or those skilled-in-the-art, could practice it without undue experimentation. Either #1 or #2 prove that enablement, utility, and validation. Together, #1 and #2 have been submitted and Applicant submits that these together corroborate enablement of the present invention both *de facto* and *de jure*.**

[from Applicant's previous Communication to the Examiner]

Attention is now directed to the fact that said comments in Applicant's Communication have simply been ignored by the Examiner. Therefore it is impossible to tell how the Examiner weighed Applicant's arguments; there is absolutely no way for the Applicant to present the Examiner's reasons for rejection to the Board of Appeals. The Applicant hereby again requests to know the substantive precise reason, scientific basis, or authority which allows the Examiner to dismiss this Argument by the Applicant without citation, analysis, or substantive coherent response.

73. Also ignored by the Examiner is the following argument by the Applicant citing *In re Vaeck*,

**"The Examiner ignores *In re Vaeck* [947 F.2d 488, 495-96, 10 USPQ2d 1438, 1444 (Fed. Cir. 1991)] which states that an enablement rejection under section 112, ¶1 is only appropriate where the written description fails to teach those skilled-in-the-art, like the Declarants, to make and use the invention.**

[from Applicant's previous Communication to the Examiner]

Attention is now directed to the fact that said comments in Applicant's Communication have simply been ignored by the Examiner. Therefore it is impossible to tell how the Examiner weighed Applicant's arguments; there is absolutely no way for the Applicant to present the Examiner's reasons for rejection to the Board of Appeals. The Applicant hereby again requests to know the substantive precise reason, scientific basis, or authority which allows the Examiner

to dismiss this Argument by the Applicant without citation, analysis, or substantive coherent response.

74. Also ignored by the Examiner is the following argument by the Applicant citing Clause 8 of Section 8, Article I,

**"The Examiner has ignored controlling authorities including Clause 8 of Section 8, Article I, by improperly eliminating an entire field involving energy and United States security.**

[from Applicant's previous Communication to the Examiner]

Attention is now directed to the fact that said comments in Applicant's Communication have simply been ignored by the Examiner. Therefore it is impossible to tell how the Examiner weighed Applicant's arguments; there is absolutely no way for the Applicant to present the Examiner's reasons for rejection to the Board of Appeals. The Applicant hereby again requests to know the substantive precise reason, scientific basis, or authority which allows the Examiner to dismiss this Argument by the Applicant without citation, analysis, or substantive coherent response.

75. Also ignored by the Examiner is the following argument by the Applicant citing Article VI,

**"The Examiner has ignored controlling authorities including Article VI, by interfering with laws passed by Congress [DIAMOND v. CHAKRABARTY; 447 U.S. 303, 309] including that patentable statutory subject matter spans "anything under the sun that is made by man" [S. Rep. No. 1979, 82d Cong., 2d Sess., 5 (1952); H. R. Rep. No. 1923, 82d Cong., 2d Sess., 6 (1952)].**

[from Applicant's previous Communication to the Examiner]

Attention is now directed to the fact that said comments in Applicant's Communication have simply been ignored by the Examiner. Therefore it is impossible to tell how the Examiner weighed Applicant's arguments; there is absolutely no way for the Applicant to present the Examiner's reasons for rejection to the Board of Appeals. The Applicant hereby again requests to know the substantive precise reason, scientific basis, or authority which allows the Examiner to dismiss this Argument by the Applicant without citation, analysis, or substantive coherent response.

76. Also ignored by the Examiner is the following argument by the Applicant citing Article I, Section 2,

**"The Examiner has ignored controlling authorities including Article I, Section 2, by ignoring that Applicant is entitled to the privileges and immunities of citizens in the other states. Specifically, the Examiner ignores that the Office, Europe and Japan have allowed selected other patents in the very same field not allowed here [Czirr(5,231,290), Westphal(5,215,631), Ahern(5,411,654), Patterson(5,036,031), (5,318,675), (5,372,688), (5,036,031); Aspden, UK-GB 2,231,195B]. This is a dual-tiered system which the Office has set up to usurp constitution rights of the Applicant and American citizens.**

[from Applicant's previous Communication to the Examiner]

Attention is now directed to the fact that said comments in Applicant's Communication have simply been ignored by the Examiner. Therefore it is impossible to tell how the Examiner weighed Applicant's arguments; there is absolutely no way for the Applicant to present the Examiner's reasons for rejection to the Board of Appeals. The Applicant hereby again requests to know the substantive precise reason, scientific basis, or authority which allows the Examiner to dismiss this Argument by the Applicant without citation, analysis, or substantive coherent response.

77. Also ignored by the Examiner is the following argument by the Applicant citing Supreme Court in United States v. Nixon (1974),

**"110. The Examiner continues to have two different standards of review. Therefore, the Examiner has ignored controlling authorities including the reasoning of the Supreme Court in United States v. Nixon (1974) that all are "equal under the law". Hence, the Examiner has ignored controlling authorities including the 14th Amendment, requiring an impartial tribunal [28 U.S. Code Section 144, Mayberry v. Penna., 91 S.8.; Bloom v. Illinois, 88 Ct. 499 S.Ct. 1477; Duncan v. Louisiana, 88 S.Ct.1444] and equal protection. In the light of the previously un rebutted Declarations [hereby again submitted] there appear to be violations of the 14th Amendment's "equal protection" clause [Frontiero v. Richardson, 93 S.Ct. 1736, 411 U.S. 677; Weiss v. Weiss, 436 N.Y.S. 2d. 862, 52 N.Y. 2d. 170 (1981)] with serious implications [Gass v. Lopez, 95 S. Ct 729; Wood v. Strickland, 95 S Ct 9S2; U.S. v. Price, 86 S Ct 1152, 1157, Footnote 7; Griffin v. Breckenridge, 91 S Ct 179D; Gamez v. Toledo, 42 U.S.C.§1983, and Bivens v. Six Unknown Named Agents of Fed. Bureau of Narcotics]."**

[from Applicant's previous Communication to the Examiner]

Attention is now directed to the fact that said comments in Applicant's Communication have simply been ignored by the Examiner. Therefore it is impossible to tell how the Examiner weighed Applicant's arguments; there is

absolutely no way for the Applicant to present the Examiner's reasons for rejection to the Board of Appeals. The Applicant hereby again requests to know the substantive precise reason, scientific basis, or authority which allows the Examiner to dismiss this Argument by the Applicant without citation, analysis, or substantive coherent response.

78. The Examiner purports that Claims 1-20 are rejected under 35 U.S.C. 112, first paragraph because the claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art ... to make and/or use the Invention. This is not true.

As proven above, the Applicant taught the subject matter defined by each of the rejected Claims including how his apparatus and method works, set forth the best mode contemplated, distinctly pointed out and claimed the subject matter which constitutes the invention, wrote an adequate enabling disclosure, and thus complied and conformed with 35U.S.C.§112, first paragraph, of the Patent Act.

In accordance with the foregoing arguments that Applicant has conformed with the requirements of sections 112 of the Patent Act, and reversal of the rejection of the Claims 1-20, and allowance of Claims 1-20 is respectfully requested, as required by the statute (35 USC 112).



## DISCUSSION OF 35 USC 101 REJECTION

79. The Examiner states,

*"5. Claims 1-20 are rejected under 35 U.S.C. 101 because the claimed invention as disclosed is inoperative and therefore lacks utility. The reasons that the inventions as disclosed is inoperative are the same as the reasons set forth in sections 3 and 4 above and the reasons set forth in sections 3 and 4 above are accordingly incorporated herein."*

### **THE TRUTH - The Examiner Has Been Substantively Unresponsive, This was Discussed Previously**

The Examiner is wrong for several reasons. First, the citations are wrong. Second, the citations made by the examiner are themselves void of reason, precision and substance, as discussed above. Third, the examiner remains substantively unresponsive to Applicant's arguments even though they were fully discussed in significant detail in the previous Communication from the Applicant to the Examiner on pages 91 through 100. For example, in said Communication, the Applicant took the time to respond to the Examiner and wrote the following comments and questions.

To begin, the citations are wrong, and are void of reason. The Examiner refers to #4, but #4 states that "Claims 1-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention". This is false as discussed above. The Examiner also refers to #3, but #3 states that "Claims 1-20 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the (invention)." This, too, is false as discussed above.

Even more importantly, the Examiner has been unresponsive to Applicant's arguments even though they were fully discussed in significant detail in the previous Communication from the Applicant to the Examiner on pages 91 through 100. For example, in said Communication, the Applicant took the time to respond to the Examiner and wrote the following comments and questions.

**"... the Examiner must consider those skilled-in-the-art who oppose and counter the rejection under 35U.S.C.§101. Third, the Examiner points to out art not involving this Application. However, validation occurs when scientists actually skilled, and working, in the state-of-the-art state it to be so. These are scientists who research and actually write the current scientific technical papers which undergo peer-review, file patent applications, and attend international conferences (which have gone on for thirteen years). They absolutely disagree with the Examiner on this. Fourth, and most importantly, there is reputable evidence of record to indicate the invention has been reduced to the point of providing an operative cold fusion. system. Fifth, the Claims clearly define subject**

**matter of considerable utility because energy needs dominate, and are critical to the economy."**

[from Applicant's previous Communication to the Examiner]

Attention is now directed to the fact that said arguments in Applicant's Communication have simply been ignored by the Examiner. Therefore it is impossible to tell how the Examiner weighed Applicant's arguments; there is absolutely no way for the Applicant to present the Examiner's reasons for rejection to the Board of Appeals. Therefore, given the above, the Applicant hereby requests to know the substantive precise reason, scientific basis, or authority which allows the Examiner to dismiss this Argument by the Applicant without citation, analysis, or substantive coherent response.

80. The Examiner has been unresponsive to Applicant's arguments citing [M.P.E.P. §2111.01],

**"Utility is a fact question, and proof of utility is sufficient if it meets at least one stated objective. In this case, it does. The Examiner has not followed the Office's own standards of review. The Office's rule [M.P.E.P. §2111.01] requires that**

**"the words of a claim ... must be read as they would be interpreted by those of ordinary skill in the art".**

**Utility is a fact question, and proof of utility is sufficient if it is convincing to one of ordinary skill in the art or if it meets at least one stated objective.**

**"Utility is a fact question, see e.g., Wilden Pump v. Pressed & Welded Products Co, 655 F.2d 984, 988, 213 USPQ 282, 285 (9th Cir. 1981); Nickola v. Peterson, 580 F.2d 898, 911, 198 USPQ 385, 399 (6th Cir. 1978), cert. denied, 440 U.S. 961, 99 S.Ct. 1504, 59 L.Ed.2d 774 (1979)."**

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**"When a properly claimed invention meets at least one stated objective, utility under 101 is clearly shown. See e.g., Standard Oil Co. (Indiana) v. Montedison, S.P.A., 664 F.2d 356, 375, 212 USPQ 327, 344 (3rd Cir. 1981), cert. denied, 456 U.S. 915, 102 S.Ct. 1769, 72 L.Ed.2d 174 (1982); E.I. du Pont de Nemours & Co. v. Berkley & Co., 620 F.2d 1247, 1258 n. 10, 1260 n. 17, 205 USPQ 1, 8 n. 10, 10 n. 17 (8th Cir.1980); Krantz and Croix v. Olin, 148 USPQ 659, 661-62 (CCPA 1966); Chisum on Patents, 4.04[4] [1983]."**

**[RAYTHEON COMPANY v. ROPER CORPORATION, U.S.C.A., Federal Circuit, 1983, 724 F.2d 951, 220 USPQ 592]]**

[from Applicant's previous Communication to the Examiner]

Attention is now directed to the relevance of the *Amicus Curiae* Brief of Drs. Edmund Storms [Exhibit "'10", 2/21/01], *Amicus Curiae* Brief of Hal Fox [Exhibit "'18", 5/8/02], *Amicus Curiae* Brief of Eugene Mallove [Exhibit "'20", 5/8/02 ],

Declaration of Scott Chubb [Exhibit "15", 8/13/01], Declaration of Hal Fox [Exhibit "16", 5/16/95], Declaration of Mr. Rotegard [Exhibit "13", 5/15/94], Declaration of Hal Fox [Exhibit "17", 8/14/01], Declaration of Eugene Mallove [Exhibit "19", 5/6/94], and Straus Declaration of [Exhibit "9", 5/22/94] have been ignored even though the affidants have probative value and even though the averments prove utility of the present invention. Applicant's Communication have simply been ignored by the Examiner. Because it is impossible to tell how the Examiner weighed Applicant's arguments, and because there is absolutely no way for the Applicant to present the Examiner's reasons for rejection to the Board of Appeals, the Applicant hereby requests to know the substantive precise reason, scientific basis, or authority which allows the Examiner to dismiss this Argument by the Applicant without citation, analysis, or substantive coherent response.

81. The Examiner has been unresponsive to Applicant's arguments citing *In Re Jolles*,

**"Proof of utility is sufficient if it is convincing to one of ordinary skill in the art. *In re Irons*, 52 CCPA 938, 340 F.2d 974, 144 USPQ 351 (1965). The amount of evidence required depends on the facts of each individual case. *In re Gazave*, 54 CCPA 1524, 379 F.2d 973, 154 USPQ 92 (1967). The character and amount of evidence needed may vary, depending on whether the alleged utility appears to accord with or to contravene established scientific principles and beliefs. *In re Chilowsky*, 43 CCPA 775, 229 F.2d 457, 108 USPQ 321 (1956)." [In *Re Jolles*, U.S.C.P.A., 1980. 628 F.2d 1322, 206 USPQ 885]**

**"The Declarations demonstrate that the original specification and claims clearly define subject matter of considerable utility. Therefore, the Applicant has fully conformed with, and satisfied, the requirements of §101 of the Patent Act and met at least one (1) stated objective [*Standard Oil Co. (Indiana) v. Montedison, S.P.A.*, 664 F.2d 356, 375, 212 USPQ 327, 344 (3rd Cir. 1981), cert. denied, 456 U.S. 915, 102 S.Ct. 1769, 72 L.Ed.2d 174 (1982); *E.I. du Pont de Nemours & Co. v. Berkley & Co.*, 620 F.2d 1247, 1258 n.10, 1260 n.17, 205 USPQ 1,8n10, 10n.17 (8th Cir. 1980); *Krantz and Croix v. Olin*, 148 USPQ 659, 661-62 (CCPA 1966); *Chisum on Patents*, 4.04[4] [1983]; *RAYTHEON COMPANY v. ROPER CORPORATION*, U.S.C.A., Federal Circuit, 1983, 724 F.2d 951, 220 USPQ 592]."**

[from Applicant's previous Communication to the Examiner]

Attention is now directed to the fact that said arguments in Applicant's Communication have simply been ignored by the Examiner. Because it is impossible to tell how the Examiner weighed Applicant's arguments, and because there is absolutely no way for the Applicant to present the Examiner's reasons for rejection to the Board of Appeals, the Applicant hereby requests to know the substantive precise reason, scientific basis, or authority which allows the Examiner to dismiss

this Argument by the Applicant without citation, analysis, or substantive coherent response.

82. The Examiner has been unresponsive to Applicant's arguments citing *In re Zurko*,

**The Examiner has rejected *In re Zurko* [142 F.3d 1447, 1449, 46 USPQ2d 1691, 1693 (Fed. Cir.), cert. granted, 119 S. Ct. 401 (1998)] which declares that utility is a fact question [RAYTHEON COMPANY v. ROPER CORPORATION, U.S.C.A., Federal Circuit, 1983, 724 F.2d 951, 220 USPQ 592], and one which the Examiner in this case must review for clear error [Cross v. Iizuka, 753 F.2d 1040, 1044 n.7, 224 USPQ 739, 742 n.7 (Fed. Cir. 1985); also *In re Zurko*].**

116. The Examiner has rejected the directive of 1.131 (a)(1) which requires that

**"When ... a patent ... is rejected .... on reference ... to a printed publication, the inventor of the subject matter of the rejected claim ... may submit an appropriate oath or declaration to overcome the patent or publication." Unrebutted Declarations have been submitted in this case, and are again submitted, and the Examiner must respond to them substantively [Marino v. Hyatt Corporation; Morrill v. Tong; and Chelebda v. H.E. Fortuna & Brothers Inc].**

***In re Irons* indicates that utility is a fact question [RAYTHEON COMPANY v. ROPER CORPORATION]. The submitted Declarations and the publications (including e.g. McKubre) are relevant as proof of utility. They demonstrate utility and operability at the time of the filing of this patent, and that it was, and is, important and of considerable utility.**

[from Applicant's previous Communication to the Examiner]

Attention is now directed to the fact that said arguments in Applicant's Communication have simply been ignored by the Examiner. Because it is impossible to tell how the Examiner weighed Applicant's arguments, and because there is absolutely no way for the Applicant to present the Examiner's reasons for rejection to the Board of Appeals, the Applicant hereby requests to know the substantive precise reason, scientific basis, or authority which allows the Examiner to dismiss this Argument by the Applicant without citation, analysis, or substantive coherent response.

In summary, the Applicant hereby requests to know the scientific basis, or any basis, in the light of the Declarations which allows the Examiner to dismiss the Argument that,

**"Proof of utility is sufficient if it is convincing to one of ordinary skill in the art. "**

The Applicant also hereby requests to know the scientific basis, or any basis, in the light of the Declarations which allows the Examiner to dismiss the *Amicus Curiae* Brief of Talbot Chubb [Exhibit "14", 2/22/01], *Amicus Curiae* Brief of Drs. Edmund Storms [Exhibit "10", 2/21/01], Averment 4 in the *Amicus Curiae* Brief of Mr. Rotegard [Exhibit "12", 2/21/01], Pages 4 through 8 in *Amicus Curiae* Brief of Thomas Valone [Exhibit "11", 2/24/01], and pages 2-5 in the Straus Declaration [Exhibit "8", November 27, 1992] have been ignored even though the affiants have probative value and even though the averments prove operability of the present invention.

83. The Examiner has been unresponsive to Applicant's arguments citing *In re Ziegler*, *In re Ferens*, *Ex parte Porter*, *In re Morris*, *In re Oetiker*, *Ex parte Gray*, *In re Brana*, *In re Marzocchi* and *In re Oetiker*.

"The Examiner has rejected *In re Ziegler* [992 F.2d 1197, 1200, 26 USPQ2d 1600, 1603 (Fed. Cir. 1993)] which requires the Examiner accept Declarations as factual proof of utility.

The Examiner has rejected *Marino v. Hyatt Corporation*, 793 F.2d 427, 430 (1st Cir. 1986); *Morrill v. Tong*, 390 Mass. 1207 129 (1983); *Chelebda v. H.E. Fortuna & Brothers Inc* 609 F.2d 1022 (1st Cir. 1979); *Lewis v. Bours*, 119 Wn.2d 667, 670, 1992] which require the Examiner to assume that the Declarants' assertions are true.

The Examiner has rejected *In re Ferens* [417 F.2d 1072, 1074, 163 USPQ 609, 611 (CCPA 1969)] which heralds that Applicant's submitted evidence, including Declarations, is sufficient.

The Examiner has rejected *Ex parte Porter* which requires that Declarations, submitted in response to the Examiner's comments, must be read, examined, and carefully considered.

The Examiner has rejected *In re Morris* [127 F.3d 1048, 1053-56, 44 USPQ2d 1023, 1027-30 (Fed. Cir. 1997)] which demands that the interpretation of operability and utility is predicated upon that which one who is skilled-in-the-art would reach. The Examiner must give the claims their broadest reasonable interpretation consistent with that which those skilled-in-the-art would reach.

The Examiner has rejected *In re Oetiker* [977 F.2d at 1445, 24 USPQ2d at 1444] which requires the Examiner substantively and fully respond to the probative witnesses, because Applicant has undertaken the full burden coming forward.

The Examiner has rejected *Ex parte Gray* [10 USPQ2d 1922, 1928 (Bd. Pat. App. & Inter. 1989)] which allows for Applicant's submitted expert testimony regarding operability and utility, beyond the detailed specification. The Examiner must give substantial weight to said Declarations about what they said about this invention compared to the Examiner's art regarding the work of others.

The Examiner has rejected *In re Brana*, 51 F.3d at 1566, 34 USPQ2d at 1441] which indicates Applicant's actions hereby meet the "burden shift ... to provide rebuttal evidence sufficient to convince such a person of the invention's asserted utility".

The Examiner has rejected *In re Marzocchi* and *In re Oetiker* which require responsive argument to the fully addressed criticism against the Examiner's unfounded notions. *In re Marzocchi*, 439 F.2d 220, 223, 169 USPQ 367, 369 (CCPA 1971)] declares that the Examiner cannot make the rejection he has unless he has reason to doubt the objective truth of the statements contained in the written description, here corroborated and supported by multiple Declarations. "

[from Applicant's previous Communication to the Examiner]

Attention is now directed to the fact that said comments in Applicant's Communication have simply been ignored by the Examiner. The Examiner did not cite Applicant's arguments, nor did the Examiner discuss Applicant's arguments, nor did the Examiner rebut Applicant's arguments. Therefore it is impossible to tell how the Examiner weighed Applicant's arguments; there is absolutely no way for the Applicant to present the Examiner's reasons for rejection to the Board of Appeals. The Examiner was requested to answer and respond with specificity, but has not shown due diligence. Therefore, given the above, the Applicant hereby again requests to know the substantive precise reason, scientific basis, or authority which allows the Examiner to dismiss this Argument by the Applicant without citation, analysis, or substantive coherent response.

**84. The Examiner has been unresponsive to Applicant's arguments citing *Gottschalk v. Benson***

**"Utility is a fact question, and proof of utility is sufficient if it meets at least one stated objective. Measurement and product formation involve transformation of a state or thing. Therefore, the Examiner has not followed the standards of review because such a two state method should be patentable based upon opinion of the Court.**

**"Transformation and reduction of an article "to a different state or thing" is the clue to the patentability of a process claim that does not include particular machines."**

**[GOTTSCHALK v. BENSON, 409 U.S. 63 (1972),  
409 U.S. 63, No. 71-485]**

**"Industrial processes such as this ["a physical and chemical process (which involves) the transformation of an article .... into a different state or thing"] are the types which have historically been eligible to receive the protection of our patent laws. [450 U.S. 175, 185]"**

**[DIAMOND v. DIEHR, 450 U.S. 175 (1981)]**

**[from Applicant's previous Communication to the Examiner]**

Attention is now directed to the fact that said comments in Applicant's Communication have simply been ignored by the Examiner. Therefore it is impossible to tell how the Examiner weighed Applicant's arguments; there is absolutely no way for the Applicant to present the Examiner's reasons for rejection to the Board of Appeals. The Applicant hereby again requests to know the substantive precise reason, scientific basis, or authority which allows the Examiner to dismiss this Argument by the Applicant without citation, analysis, or substantive coherent response.

85. The Examiner has been unresponsive to Applicant's arguments citing Art. I, §8, cl. 8 and DIAMOND v. CHAKRABARTY, 447 U.S. 303, 309.

**"The Examiner has rejected the controlling authority of Art. I, §8, cl. 8 which provides that "Congress shall have Power (t)o promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries" Art. I, §8, cl. 8 empowers Congress in this matter. Yet, the Examiner has rejected that the US Congress has mandated progress. "The patent laws (reflect) this Nation's deep-seated .... need to encourage progress." [DIAMOND v. CHAKRABARTY, 447 U.S. 303 (1980), 447 U.S. 303, No. 79-136]**

**In the Office Communication [Exhibit "A"], the Examiner appears to have rejected that the US Congress has mandated encouragement of science, and the Office's actions are inconsistent both with the Patent Act of 1793, authored by Thomas Jefferson, which defined statutory subject matter as "any new and useful art, machine, manufacture, or composition of matter" Act of Feb. 21, 1793, 1, 1 Stat. 319, and with the Act which embodied Jefferson's philosophy that "ingenuity should receive a liberal encouragement." [447 U.S. 303, 309].**

**Therefore, because the Examiner appears to again ignore these matters, if in the future it becomes necessary to address compliance, standards of review, and recognition of receipt of said federal documents, applicant reserves the right to file a Complaint in federal court, including in the First Circuit, to address these cited matters involving said violations of the US Constitution and Office rules. Applicant submits these materials again, and hopes that this accountability matter will not be necessary. Applicant hopes that, instead, the Office will henceforth respect the accuracy of peer-reviewed publications [including those published by the American Nuclear Society, and the long detailed record in this and the associated applications, along with the urgent and critical need for this country's judicial economy and energy security, and the belief that the Patent Office is compliant with its standards of review and consistent with both said Constitution and aid Congressional directive.**

**[from Applicant's previous Communication to the Examiner]**

Attention is now directed to the fact that said comments in Applicant's Communication have simply been ignored by the Examiner. Therefore it is impossible to tell how the Examiner weighed Applicant's arguments; there is absolutely no way for the Applicant to present the Examiner's reasons for rejection to the Board of Appeals.



86. Attention is now directed to the fact that Applicant's Communication stated, **"The Examiner improperly ignores and/or dismisses the Affiants' facts about the invention as "opinion". However, Declarants' statements and the peer-reviewed publications are Fact. The Applicant again asks the Office and Examiner (who refused to answer when asked on the telephone, as did his Supervisor): Exactly how many Declarants does it take to overcome the Examiner's unsubstantiated rejection? The answer is simple. The answer is quantitative. The answer is one (1). "**

[from Applicant's previous Communication to the Examiner]

Attention is now directed to the fact that said comments in Applicant's Communication have simply been ignored by the Examiner. Therefore it is impossible to tell how the Examiner weighed Applicant's arguments; there is absolutely no way for the Applicant to present the Examiner's reasons for rejection to the Board of Appeals.

In summary, in this case, the Applicant has set forth products and methods which have undergone peer-review, and as such do present utility within the meaning of 35 U.S.C. 101 [Brenner v. Manson, 148 U.S.P.Q. 689]. Therefore, in this case, utility under 101 is clearly shown. Given the utility Applicant respectfully requests reconsideration of the rejection of Claims 1-20 pursuant to U.S.C. 101.

## Other Errors In The Office's Communication

87. The Examiner states,

*"Applicant's 11/28/03 amendment, which revises claim 14, is acknowledged. This amendment is in response to the 07/09/03 Office Action."*

This Amendment by Applicant was actually submitted 10/22/03. Attention is directed to the Certificate of Mailing on the last page of the Applicant's Response.

88. The Examiner states,

*"Applicant traversed the rejection of claims under 35 U.S.C. 112, first paragraph, applicant on the grounds that: a) the claims are directly from the original specification (i.e. parent), and the scope and wording of the claims maintain the wording and scope of the original disclosure and claims; and b) the claims comply with the Federal Decision 00-1107 in the parent of the instant application. The Examiner disagrees because in its decision in 00-1107, the Board affirmed the rejection of the claims in the parent application for lack of enablement and utility. The Board concluded that the applicant "had not provided an enabling specification such that one of ordinary skill in the art could conduct the claimed cold fusion process without undue experimentation." (see page 14 of 00-1107)."*

First, the Examiner has not responded to the fact that the claims are directly from the original specification (S/N 07/371,937), or the Examiner is disingenuous about what was in that original specification. Where is the Examiner's substantive response? This important, relevant, substantial, significant, and fundamental argument in Applicant's Communication has simply been ignored by the Examiner. The Examiner did not discuss Applicant's argument, nor did the Examiner rebut the Applicant's argument. Therefore it is impossible to tell how the Examiner weighed Applicant's argument and there is absolutely no way for the Applicant to present the Examiner's reasons for rejection to the Board of Appeals, Petition to the Commissioner, or Federal Court.

Second, the Examiner is changing the subject. The Board affirmed the Office's rejection of the parent application because of the Office's allegation that the Applicant did not respond to the Office regarding operability and utility. In fact, as demonstrated in the Applicant's Petition to the Supreme Court of the United States, and as corroborated by the record itself, this error on the part of the Board and Court were based upon what appear to be a series of disingenuous statements by the Office. If the Board erroneously concluded that the Applicant "had not provided an enabling specification", it is obvious that decision was based upon the assurance made to the Board by the Office. If necessary, the Applicant preserves all right to bring each and every erroneous statement made by the Office into the present record

to correct either this, or any further misstatements, made about this matter in which at least one individual in the Office has violated 18 U.S.C. §1001.

89. The Examiner states,

*"5. Applicant also traversed the Examiner's statement that he has presented neither a working example nor description of an operating embodiment nor specific direction or guidance as to how to achieve the claimed results. Applicant cites the specification of the parent case, S/N 07/371,937, as proof that he has an operating embodiment. To the contrary, the Board in Federal Decision 00-1107 clearly stated that there is "complete absence of working examples in Swartz's specification" (see page 14 of 00-1107)."*

Applicant cited the specification of the parent case, S/N 07/371,937 not as proof of an operating embodiment, but that no new material was added in the present application. Applicant cited his other pending applications as proof of an operating embodiment, with loading measurement based upon S/N 07/371,937. In the Appeal which the Examiner cites, paper were withheld from the Board, for reasons to this day unclear. Attention of the Examiner is also directed to the fact that in the cited case on Appeal even the docket was changed.

90. The Examiner states,

*"Applicant cites declarations that allegedly demonstrate proof of operability and enablement. The submitted declarations have been fully considered but found unconvincing because of one or more of the following reasons ..."*

With all due respect. The Declarations prove utility, and affirm that the teachings were sufficient for those skilled in the art. Operability is demonstrated in the original specification and claims which teach and claim the present invention. Enablement, which is a legal definition, based upon both operability and utility, are decided by a Court. To demonstrate that the Applicant's umbrage to this has firm foundation, each of the Examiner's alleged issues will be now be discussed below in detail.

91. The Examiner states,

*"Applicant cites declarations that allegedly demonstrate proof of operability and enablement. The submitted declarations have been fully considered but found unconvincing because of one or more of the following reasons: a) They appear mainly directed to opinions and conclusions unsupported by facts (e.g., Ahern, Kurzweil, Miles, Rotegard and Storms). See In re Pike et al., 84 USED 235. No weight is given to an opinion declaration on the ultimate legal conclusion in issue. See In re Lindell, 155 USPQ 251."*

Despite this statement by the Examiner, the Declarations are directed to facts. Despite this statement by the Examiner, the Declarations' averments had facts which were discussed in detail for the forensic benefit of the Office -- and, if necessary, the Court. These discussions in said Declarations made by the declarants support the conclusions in the Applicant's communication made in response to the

Office; and Applicant's communication has not been discussed from the office (*vide supra, vide infra*). To even further demonstrate that the Examiner is wrong, these will be discussed in detail below.

Furthermore, the Office is incorrect because a declarant who states that his declaration, or affirmation, is an "opinion", does not thereby make it an opinion. This has been upheld by the Court, and cited by the Applicant in the previous communication to the office (which was ignored). In this regard, attention is directed to the fact that the Examiner has been unresponsive to Applicant's arguments regarding *In re Fouche* even though they were fully discussed in significant detail in the previous Communication from the Applicant to the Examiner, where Applicant stated,

**"The confusion here results from the fact that the Examiner has mistaken a question of fact for a question of law. The Examiner cannot dismiss Declarations improperly to "opinion"-status without an adequate explanation of how the Declarations failed to overcome the *prima facie* case initially established by the Examiner. Thus, because utility is a fact question, and proof of utility is sufficient if it is convincing to one of ordinary skill in the art or if it meets at least one stated objective. In this case, the invention is convincing to several of ordinary skill in the art who have stated so at public meetings and the invention meets several stated objectives. The invention (structure, operation and composition) is defined by the claims and the original specification, and in this case they correctly define the invention, and the teachings have been corroborated, and therefore there is enablement (a question of law; *In re Fouche*, 439 F.2d 1237, 1243, 169 USPQ 429, 434, (CCPA 1971)). Enablement, utility, and operability are grounds for patentability.**

**The Examiner's error becomes further unlawful because the Examiner has also rejected *In re Alton* which requires that even the use of the words "it is my opinion" to preface what someone of ordinary skill in the art knows does not transform the factual statements contained in the declaration into opinion testimony.**

[from Applicant's previous Communication to the Examiner]

Attention is now directed to the fact that said arguments in Applicant's Communication have simply been ignored by the Examiner. The Examiner did not cite Applicant's arguments, nor did the Examiner discuss Applicant's arguments, nor did the Examiner rebut Applicant's arguments. Therefore it is impossible to tell how the Examiner weighed Applicant's arguments; there is absolutely no way for the Applicant to present the Examiner's reasons for rejection to the Board of Appeals. Therefore, given the above, the Applicant hereby again requests to know the substantive precise reason, scientific basis, or authority which allows the Examiner to dismiss this Argument by the Applicant without citation, analysis, or substantive

coherent response. Specifically, the Applicant hereby requests to know the scientific basis, or any basis which allows the Examiner to dismiss the Argument that,

**"The Examiner's error becomes further unlawful because the Examiner has also rejected In re Alton which requires that even the use of the words "it is my opinion" to preface what someone of ordinary skill in the art knows does not transform the factual statements contained in the declaration into opinion testimony."**

The Examiner should explain his newfound authority for bypassing the law which states that weight must be given to such a declaration. If the Examiner, or Office disagrees, the Applicant hereby explicitly requests that the office provides a factual basis, with accuracy and precision and authority, for each such declaration cited, so that it shall be clear what are the alleged facts that purportedly prove the office's statement.

92. The Examiner states,

*"Applicant cites declarations that allegedly demonstrate proof of operability and enablement. The submitted declarations have been fully considered but found unconvincing because of one or more of the following reasons:*

*c) They were submitted in support of a different application, have been previously considered on appeal, and applicant's petition denied (e.g., Mallove, Verner, and Straus). Additionally, the applicant did not establish the relevance of these declarations to the current application."*

The Examiner has not presented any argument of substance, precision regarding the basis and authority of his ignoring said submitted declarations by the Office, any of them. In fact, the submitted declarations are convincing to one who is not biased. Attention is directed to the fact that the declarants and the Communications from the Applicant to the Office each explained why their statements are relevant, and why said statements pertain to the Examiner's (erroneous) rejections.

In addition, despite the above statement by the Examiner, the declarations were submitted with discussion of how they have relevance to the current application and the behavior of the Office. As one example, attention is now directed to the previous Communication from the Applicant which said (but was ignored, as usual),

**"Said Declarations and almost four hundred references, constitute a *bona fide* case. They demonstrate validation, operability, and utility of the Applicant's claimed subject matter as correctly taught in the original specification and claims regarding said monitored vibrating electrode. Straus (A44-A48) and Swartz (A18-A43) contained factual statements directly addressing how the specification adequately described the subject matter recited in the claims of S.N 09/750,480 and demonstrate that it operates as stated. They also herald that a person of ordinary skill in the art would have understood the inventor to have been in possession of the claimed invention at the time of filing. Simply put, the post-filing references establish that, as of the filing date, one of skill-in-the-art could use a method to monitor a vibrating electrode**

**without undue experimentation. Vibrational modes of a material are not "incredible" (A144) but can be elicited when using the teaching of the original specification and claims. Vibrations are not unproven "theory" (A153) as the Examiner disingenuously purports."**

[from Applicant's previous Communication to the Examiner]

Where is the Examiner's substantive response?

Furthermore the Office is wrong when it states, "*(t)hey were submitted in support of a different application*", because many of the declarations were submitted, from the present record. As but one example, is the citation of the Straus and Fox Declarations which discuss this invention, but were not considered.

Furthermore the Office is wrong when it states, "*(t)hey ... have been previously considered on appeal*", because the declarations were submitted, but many were not considered on appeal (Exhibit 7). Corroborating this, and further supporting the Applicant, the Court did not address them.

Furthermore, attention is now directed to the fact that the Board ordered the office to respond to them [Exhibit "6"] but, of course, the Office did not substantively, demonstrating a lack of due diligence by the Office and the Examiner. Therefore, the Court did not address them.

In summary, attention is directed to the fact that, corroborating this, the arguments in the previous Communication from the Applicant to the Office have been substantively ignored by the Office, explaining the Office need to impugn Applicant's affiants.

93. The Examiner states,

*"Applicant cites declarations that allegedly demonstrate proof of operability and enablement. The submitted declarations have been fully considered but found unconvincing because of one or more of the following reasons: d) They deal with issues in the cold fusion area that have since been either discredited, abandoned, found defective or else overtaken by events (e.g., Mallove on the Japanese cold fusion research)."*

None of the issues, arguments, facts, or matters of rebuttal, in the Applicant's previous Communication have been the discredited, abandoned, found defective or overtaken by any events. The Examiner has used a broad brush, with tongue firmly in cheek, to impugn the applicant for no reason and without any basis. The Applicant explicitly requests hereby that the Examiner state precisely and with accuracy exactly what issue has been allegedly discredited. The Applicant explicitly requests hereby that the Examiner state precisely and with accuracy exactly what issue has been allegedly abandoned, The Applicant explicitly requests hereby that the Examiner state precisely and with accuracy exactly what issue has been allegedly found defective.

94. The Examiner states,

*"Applicant cites declarations that allegedly demonstrate proof of operability and enablement. The submitted declarations have been fully considered but found unconvincing because of one or more of the following reasons: e) They do not appear to have been declarations of disinterested parties (e.g., Swartz, Rotegard)."*

There is no substantive basis for the Office to have stated this. Attention is directed to the fact that the Declarants of said Declarations have been sworn, but the Examiner has not. Therefore, the Applicant hereby explicitly requests that the Office state why Mr. Rotegard and Dr. Swartz should be disqualified or found unconvincing because they are allegedly disinterested parties. The Applicant asks the office to be accurate and precise and to state exactly which declaration is being discussed, and exactly why the stated parties are unconvincing. Given the broad-brush attack by the Office, the Examiner and Office should make these details with substantive precision and detailed accuracy because this latest attack is apparently again made to impugn the Applicant.

95. The Examiner states,

*"2. Applicant's arguments traversing the rejection of have been fully considered but they are not persuasive because they can be best characterized, for example, as follows: Irrelevant (e.g., alleging that new matter in the disclosure is the result of the election requirement of the Examiner of parent application)."*

#### **The Truth - Applicant's Arguments Not Been Substantively Considered**

The Examiner is incorrect. Almost none of Applicant's arguments have been fully considered. They are persuasive, and they have been ignored substantively. Therefore it is impossible to tell how the Examiner weighed any of Applicant's arguments. There is absolutely no way for the Applicant to present the Examiner's reasons for rejection to the Board of Appeals. In this case, the Examiner falsely claims that *"alleging that new matter in the disclosure is the result of the election requirement of the Examiner of parent application"* is *"Irrelevant"*. Thus, this is a false statement of the Examiner as proven above in detail regarding the word "loading", because the matter is very relevant as it effects both the date of the application and relevancy of the cited art.

96. The Examiner states,

*"2. Applicant's arguments traversing the rejection of have been fully considered but they are not persuasive because they can be best characterized, for example, as follows: Improper interpretation (e.g. alleging that hydrogen loading is not new matter because it is a subject discussed extensively in cited literature)"*

**The Truth - Applicant's Arguments Not Been Substantively Considered**

The Examiner is incorrect. Almost none of Applicant's arguments have been fully considered. They are persuasive, and they have been ignored substantively. Therefore it is impossible to tell how the Examiner weighed any of Applicant's arguments. There is absolutely no way for the Applicant to present the Examiner's reasons for rejection to the Board of Appeals. In this case, the Examiner falsely claims that Applicant *"allege(ed) that hydrogen loading is not new matter because it is a subject discussed extensively in cited literature"*. This false statement of the Examiner is proven by the record itself because "loading" has been shown indelibly to be "not new matter" because it was in the original specification and claims, and even in the Appeal to the Board of the original specification and claims (*vide supra*).

97. The Examiner states,

*"2. Applicant's arguments traversing the rejection of have been fully considered but they are not persuasive because they can be best characterized, for example, as follows: Recycling of old arguments that have no merit (e.g., Examiner could not have found prior art if the invention was indefinite)"*

**The Truth - Applicant's Arguments Not Been Substantively Considered**

The Examiner is incorrect. Almost none of Applicant's arguments have been fully considered. They are persuasive, and they have been ignored substantively. Therefore it is impossible to tell how the Examiner weighed any of Applicant's arguments. There is absolutely no way for the Applicant to present the Examiner's reasons for rejection to the Board of Appeals. In this case, the Examiner falsely claims that there was *"Recycling of old arguments that have no merit (e.g., Examiner could not have found prior art if the invention was indefinite)"*. This false statement of the Examiner is proven because, first, that Examiner could not have found prior art if the invention was indefinite, is not an old argument, but is a relevant argument which is ignored by the Examiner. Second, there is significant merit to the matter. Third, it was discussed in the Declarations also ignored by the Examiner.



Attention is now directed to the fact that the *Amicus Curiae* Brief of Talbot Chubb [Exhibit "'14", 2/22/01], *Amicus Curiae* Brief of Drs. Edmund Storms [Exhibit "'10", 2/21/01], Averment 4 in the *Amicus Curiae* Brief of Mr. Rotegard [Exhibit "'12", 2/21/01], Pages 4 through 8 in *Amicus Curiae* Brief of Thomas Valone [Exhibit "'11", 2/24/01], and pages 2-5 in the Straus Declaration [Exhibit "'8", November 27, 1992] have been ignored even though the affiants have probative value and even though the averments prove operability of the present invention.

Attention is now directed to the fact that the *Amicus Curiae* Brief of Drs. Edmund Storms [Exhibit "'10", 2/21/01], *Amicus Curiae* Brief of Hal Fox [Exhibit "'18", 5/8/02], *Amicus Curiae* Brief of Eugene Mallove [Exhibit "'20", 5/8/02], Declaration of Scott Chubb [Exhibit "'15", 8/13/01], Declaration of Hal Fox [Exhibit "'16", 5/16/95], Declaration of Mr. Rotegard [Exhibit "'13", 5/15/94], Declaration of Hal Fox [Exhibit "'17", 8/14/01], Declaration of Eugene Mallove [Exhibit "'19", 5/6/94], and Straus Declaration of [Exhibit "'9", 5/22/94] have been ignored even though the affiants have probative value and even though the averments prove utility of the present invention.

98. The Examiner states,

*"2. Applicant's arguments traversing the rejection of have been fully considered but they are not persuasive because they can be best characterized, for example, as follows: Recycling of arguments previously rejected in denied petitions (e.g., Examiner is forcing Applicant into double patenting)"*

#### **The Truth - Applicant's Arguments Not Been Substantively Considered**

The Examiner is incorrect. Almost none of Applicant's arguments have been fully considered. They are persuasive, and they have been ignored substantively. Therefore it is impossible to tell how the Examiner weighed any of Applicant's arguments. There is absolutely no way for the Applicant to present the Examiner's reasons for rejection to the Board of Appeals. In this case, the Examiner falsely claims that there is *"Recycling of arguments previously rejected in denied petitions (e.g., Examiner is forcing Applicant into double patenting)"*. This false statement of the Examiner is proven by the fact that the issue is presently before the Board and is an open question. Furthermore, it is a fact that it has not been substantively addressed consistent with common standards of review.

99. The Examiner states,

*"2. Applicant's arguments traversing the rejection of have been fully considered but they are not persuasive because they can be best characterized, for example, as follows: Inconsistency with factual information (e.g., changes in the specification respond to and fully comply with Federal Appellate Decision 00-1107)"*

**The Truth - Applicant's Arguments Not Been Substantively Considered**

The Examiner is incorrect. Almost none of Applicant's arguments have been fully considered. They are persuasive, and they have been ignored substantively. Therefore it is impossible to tell how the Examiner weighed any of Applicant's arguments. There is absolutely no way for the Applicant to present the Examiner's reasons for rejection to the Board of Appeals. In this case, the Examiner falsely claims that there is *"Inconsistency with factual information (e.g., changes in the specification respond to and fully comply with Federal Appellate Decision 00-1107)"*. This Applicant hereby demands that Examiner substantively explain his comment which impugns the Applicant.

100. The Examiner states,

*"2. Applicant's arguments traversing the rejection of have been fully considered but they are not persuasive because they can be best characterized, for example, as follows: Improper definition of terms (e.g., applicant appears to define "skilled-in the art" as declarants, affiants and Amicus Curiae who agree with him but excludes those with contrary opinion)"*

**The Truth - Applicant's Arguments Not Been Substantively Considered**

The Examiner is incorrect. Almost none of Applicant's arguments have been fully considered. They are persuasive, and they have been ignored substantively. Therefore it is impossible to tell how the Examiner weighed any of Applicant's arguments. There is absolutely no way for the Applicant to present the Examiner's reasons for rejection to the Board of Appeals. In this case, the Examiner falsely claims that there is *"Improper definition of terms (e.g., applicant appears to define "skilled-in the art" as declarants, affiants and Amicus Curiae who agree with him but excludes those with contrary opinion)"*. This Applicant hereby demands that Examiner substantively explain his comment which impugns the Applicant, including exactly where Applicant states this. It is unfair to thousands of scientists and researchers that the Examiner impugns them as well with his "brick-toss" handwave *ad hominem*. An apology is in order from the Examiner each of these individuals who took the time to comply with federal regulations, but were smeared by the Examiner, for reasons unclear at this time.

101. The Examiner states,

*"2. Applicant's arguments traversing the rejection of have been fully considered but they are not persuasive because they can be best characterized, for example, as follows: Failure to establish relevance of documents to current application (e.g., Mallove declaration)"*

**THE TRUTH -**

The Examiner is incorrect. Almost none of Applicant's arguments have been fully considered. They are persuasive, and they have been ignored substantively. Therefore it is impossible to tell how the Examiner weighed any of Applicant's arguments. There is absolutely no way for the Applicant to present the Examiner's reasons for rejection to the Board of Appeals. In this case, the Examiner falsely claims that there has been "Failure to establish relevance of documents to current application (e.g., Mallove declaration)." This false statement of the Examiner is proven above in detail.

102. The Applicant apologizes for any comment which the Examiner or his Supervisor took as an insult on either of them. This was NOT intentional, but was an inadvertent and unintentional impact of having to repeatedly cite references over and over demonstrating science and mathematics which were anticipated as being generally known to those skilled-in-the-art. The Applicant has thanked, and does again thank, the Examiner. The Applicant notes below that Examiner is disparaging of both the Applicant and some of the Affiants who took the time to prepare forensic statements about the present invention and other inventions which the Applicant has submitted to the Office for fifteen year even as the Office has often responded in error, or with lost check, or lost communication, or lost Exhibits, etc.

## CONCLUSION

103. Applicant taught in the original specification and claims how his apparatus works and claimed the invention. Applicant has made a diligent effort to amend the claims of this application so that Claims 1-20 define a novel structure which is also submitted to render said claimed structure unobvious because it produces new and unexpected results. The Applicant has explained in detail (*supra*) how the cited art is different and therefore produces a different result from the present invention. Applicant has given lists of additional critical features and components which distinguish Applicant's invention to operatively function in a different manner to the cited art. Therefore, the Applicant submits that any combination of the other cited art is an improper one, absent any showing in the references themselves that they can or should be so combined. Neither of the references appears to suggest, or allude to, or teach a structure as defined by Claims 1-20. It appears that the figures and claims of the other cited art are intended to, and do, serve a different purpose than does the structure defined by the claims, and each of the cited art adds nothing of substance. None of the references shows a method to reveal information about the loading, *in situ*, and non-invasively using a vibrating electrode, composed of a metal such as palladium which has internal filling ("loading") with hydrogen, which is monitored for its natural frequency. None of the references shows these features. Therefore, based upon the facts cited here, these Claims 1-20 are patentable over the cited references because the claims recite novel structure and thus are distinguished physically over every reference [Sec. 102], with physical distinctions which effect new and unexpected results, thereby indicating that the physical distinction is simply not obvious [Sec. 103].

104. As the original specification and claims teach, the present invention solves the long-standing problem of monitoring loading, *in situ*, and non-invasively. The Examiner should admit that said features are not "incredible" but can be elicited when using the teachings of the original specification and claims. Furthermore, there is documented existence of these reactions and the preferred environment in which the present invention does operate, and of the operation of the present invention. Therefore, if the Examiner disagrees with overturning his improper rejection without foundation, then the Applicant requests specificity as to the reason to facilitate Appeal. Specifically, Applicant requests that Examiner makes clear in the record which of these submitted averments by the Declarants regarding operability and utility were formally and substantially considered, and if the Examiner disputes them, exactly how he will have reached his conclusion. Furthermore, if the Examiner continues to dismiss, ignore, or relegate the relevant Exhibits and Declarations discussed above, then the Applicant hereby explicitly requests an adequate explanation of how the Declarations failed to overcome the *prima facie* case initially established by the Examiner. If necessary, for the Board of Appeal, Applicant requests it be stated explicitly, with clear pointing to where in Applicant's publications or applications said rebuttal relates with specificity.

#### **Request For Constructive Assistance**

105. If, for any reason the claims of this application are not believed to be in full condition for allowance, the applicant respectfully requests the constructive assistance and suggestions of the Examiner in drafting one or more acceptable claims [pursuant to MPEP 707.07(j)] or in making constructive suggestions [pursuant to MPEP 706.03(d)] in order that this application can be placed in allowable condition as soon as possible and without the need for further proceedings.

106. Applicant respectfully notes that the U.S. Supreme Court has ruled that any pro se litigant is entitled to less stringent standards [U.S. Rep volume 404, pages 520-521 (72)].

WHEREFORE for the above reasons, the Applicant respectfully requests reconsideration and that the hereby submitted claims for entry to comply with the Examiner's communication are entered. The claims now differ even more significantly from the cited art, and are even more clearly consistent with the original specification and claims. Hopefully this will satisfy the Examiner and there will be reversal of the Examiner's rejections of Claims 1-20 rejected under 35 U.S.C. 112, first paragraph, "as failing to comply with the enablement requirement", Claims 1-20 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention, Claims 1, 3-7 rejected under 35 U.S.C. 102(b) as being anticipated by JP-06 018683, and Claims 8-20 rejected under 35 U.S.C. 103(a) as being unpatentable over JP 06-018683 in view of any one of Wang et al. (U.S. 5,495,767), Steinlecher et al. (U.S. 5,883,715) or Zang et al. (U.S. 5,838,439). Applicant requests this reversal as is just and reasonable, or requests that the Examiner address each matter of law and error of fact cited herein with the precision and accuracy expected of the those who operated under color of federal law.

Respectfully,



Mitchell R. Swartz, ScD, MD, EE

**Certificate Of Mailing [37 CFR 1.8(a)]**

January 28, 2004

To Whom it Does Concern:

I hereby certify that this correspondence will be deposited with the United States Postal Service by First Class Mail, postage prepaid, in an envelope addressed to

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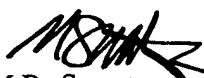
Board Of Patent Appeals

c/o The Commissioner for Patents

Alexandria, VA 22313-1450" on the date below.

Thank you.

Sincerely,  
January 28, 2004



M.R. Swartz  
Weston, MA 02493